



VZCA2.E490791
Surge-protective Devices - Component

[Page Bottom](#)

Surge-protective Devices - Component

[See General Information for Surge-protective Devices - Component](#)

SHENZHEN SOCAY ELECTRONICS CORP LTD

E490791

4F Block C, Hehengxing Science & Technology Park, 19 Minqing Rd
 Longhua District
 Shenzhen, Guangdong 518109 CHINA

Cat No.	SPD Type	Volts (V)	AC/DC/DC PV	PH	AMPS (A)	AMB (°C)Min	AMB (°C)Max	MODE	VPR (Vpk)	MLV (Vpk)	MCOV (V)	Vn (Vdc)	In (kA)	SCCR (kA)	NOTES
05D101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	320	60	100	0.5	N/A	1, 5a
05D121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	360	75	120	0.5	N/A	1, 5a
05D151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	400	95	150	0.5	N/A	1, 5a
05D180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	100	11	18	0.15	N/A	1, 5a
05D181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	450	115	180	0.5	N/A	1, 5a
05D201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	480	130	200	0.5	N/A	1, 5a
05D220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	110	14	22	0.15	N/A	1, 5a
05D221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	520	140	220	0.5	N/A	1, 5a
05D241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	550	150	240	0.5	N/A	1, 5a
05D270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	130	17	27	0.15	N/A	1, 5a
05D271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	640	175	270	0.5	N/A	1, 5a
05D301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	720	190	300	0.5	N/A	1, 5a
05D330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	140	20	33	0.15	N/A	1, 5a
05D331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	770	210	330	0.5	N/A	1, 5a
05D361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	840	230	360	0.5	N/A	1, 5a
05D390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	160	25	39	0.15	N/A	1, 5a
05D391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	900	250	390	0.5	N/A	1, 5a
05D431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	990	275	430	0.5	N/A	1, 5a
05D470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	190	30	47	0.15	N/A	1, 5a
05D471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1070	300	470	0.5	N/A	1, 5a
05D511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1140	320	510	0.5	N/A	1, 5a
05D560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	210	35	56	0.15	N/A	1, 5a
05D561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1240	350	560	0.5	N/A	1, 5a
05D680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	230	40	68	0.15	N/A	1, 5a
05D820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	300	50	82	0.5	N/A	1, 5a
07D101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	320	60	100	1	N/A	1, 5a
07D121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	360	75	120	1	N/A	1, 5a
07D151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	410	95	150	1	N/A	1, 5a
07D180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	80	11	18	0.25	N/A	1, 5a
07D181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	450	115	180	1	N/A	1, 5a
07D201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	490	130	200	1	N/A	1, 5a
07D220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	100	14	22	0.25	N/A	1, 5a
07D221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	530	140	220	1	N/A	1, 5a
07D241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	560	150	240	1	N/A	1, 5a
07D270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	110	17	27	0.25	N/A	1, 5a
07D271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	650	175	270	1	N/A	1, 5a

07D301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	720	190	300	1	N/A	1, 5a
07D330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	130	20	33	0.25	N/A	1, 5a
07D331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	770	210	330	1	N/A	1, 5a
07D361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	840	230	360	1	N/A	1, 5a
07D390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	160	25	39	0.25	N/A	1, 5a
07D391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	910	250	390	1	N/A	1, 5a
07D431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	990	275	430	1	N/A	1, 5a
07D470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	180	30	47	0.25	N/A	1, 5a
07D471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1080	300	470	1	N/A	1, 5a
07D511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1150	320	510	1	N/A	1, 5a
07D560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	210	35	56	0.25	N/A	1, 5a
07D561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1350	350	560	1	N/A	1, 5a
07D621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1480	385	620	1	N/A	1,5a
07D680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	240	40	68	0.25	N/A	1, 5a
07D681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1600	420	680	1	N/A	1,5a
07D711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1660	440	710	1	N/A	1,5a
07D751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1750	460	750	1	N/A	1,5a
07D781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1840	485	780	1	N/A	1,5a
07D820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	300	50	82	1	N/A	1, 5a
07D821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1930	510	820	1	N/A	1, 5a
10&101%AX	5	60	AC	1	n/a	-	85	Ld-Ld	-	300	60	100	2	n/a	1
10&102%AX	5	625	AC	1	n/a	-	85	Ld-Ld	-	2110	625	1000	2	n/a	1
10&112%AX	5	680	AC	1	n/a	-	85	Ld-Ld	-	2310	680	1100	2	n/a	1
10&121%AX	5	75	AC	1	n/a	-	85	Ld-Ld	-	360	75	120	2	n/a	1
10&122%AX	5	750	AC	1	n/a	-	85	Ld-Ld	-	2500	750	1200	2	n/a	1
10&151%AX	5	95	AC	1	n/a	-	85	Ld-Ld	-	440	95	150	2	n/a	1
10&180%AX	5	11	AC	1	n/a	-	85	Ld-Ld	-	110	11	18.5	0.5	n/a	1
10&181%AX	5	115	AC	1	n/a	-	85	Ld-Ld	-	510	115	180	2	n/a	1
10&201%AX	5	130	AC	1	n/a	-	85	Ld-Ld	-	430	130	205	2	n/a	1
10&220%AX	5	14	AC	1	n/a	-	85	Ld-Ld	-	130	14	22.5	0.5	n/a	1
10&221%AX	5	140	AC	1	n/a	-	85	Ld-Ld	-	470	140	220	2	n/a	1
10&241%AX	5	150	AC	1	n/a	-	85	Ld-Ld	-	520	150	246	2	n/a	1
10&270%AX	5	17	AC	1	n/a	-	85	Ld-Ld	-	140	17	27.5	0.5	n/a	1
10&271%AX	5	175	AC	1	n/a	-	85	Ld-Ld	-	610	175	283	2	n/a	1
10&301%AX	5	190	AC	1	n/a	-	85	Ld-Ld	-	640	190	300	2	n/a	1
10&330%AX	5	20	AC	1	n/a	-	85	Ld-Ld	-	160	20	33.5	0.5	n/a	1
10&331%AX	5	210	AC	1	n/a	-	85	Ld-Ld	-	710	210	330	2	n/a	1
10&361%AX	5	230	AC	1	n/a	-	85	Ld-Ld	-	770	230	360	2	n/a	1
10&390%AX	5	25	AC	1	n/a	-	85	Ld-Ld	-	180	25	39.5	0.5	n/a	1
10&391%AX	5	250	AC	1	n/a	-	85	Ld-Ld	-	880	250	390	2	n/a	1
10&431%AX	5	275	AC	1	n/a	-	85	Ld-Ld	-	980	275	430	2	n/a	1
10&470%AX	5	30	AC	1	n/a	-	85	Ld-Ld	-	210	30	47.5	0.5	n/a	1
10&471%AX	5	300	AC	1	n/a	-	85	Ld-Ld	-	1020	300	470	2	n/a	1
10&511%AX	5	320	AC	1	n/a	-	85	Ld-Ld	-	1100	320	510	2	n/a	1
10&560%AX	5	35	AC	1	n/a	-	85	Ld-Ld	-	240	35	56.5	0.5	n/a	1
10&561%AX	5	350	AC	1	n/a	-	85	Ld-Ld	-	1210	350	560	2	n/a	1
10&621%AX	5	385	AC	1	n/a	-	85	Ld-Ld	-	1340	385	620	2	n/a	1
10&680%AX	5	40	AC	1	n/a	-	85	Ld-Ld	-	270	40	68.5	0.5	n/a	1
10&681%AX	5	420	AC	1	n/a	-	85	Ld-Ld	-	1470	420	680	2	n/a	1

10&751%AX	5	460	AC	1	n/a	-	85	Ld-Ld	-	1610	460	680	2	n/a	1
10&781%AX	5	510	AC	1	n/a	0	85	Ld-Ld	-	1670	485	780	2	n/a	1
10&820%AX	5	50	AC	1	n/a	0	85	Ld-Ld	-	250	50	82	2	n/a	1
10&821%AX	5	510	AC	1	n/a	0	85	Ld-Ld	-	1750	510	820	2	n/a	1
10&911%AX	5	550	AC	1	n/a	-	85	Ld-Ld	-	1930	550	910	2	n/a	1
10D101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	340	60	100	3	N/A	1, 5a
10D102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2460	625	1000	3	N/A	1, 5a
10D112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2660	680	1100	3	N/A	1, 5a
10D121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	380	75	120	3	N/A	1, 5a
10D151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	430	95	150	3	N/A	1, 5a
10D180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	80	11	18	0.5	N/A	1,5a
10D181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	470	115	180	3	N/A	1, 5a
10D201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	510	130	200	3	N/A	1, 5a
10D220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	90	14	22	0.5	N/A	1,5a
10D221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	550	140	220	3	N/A	1, 5a
10D241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	590	150	240	3	N/A	1, 5a
10D270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	110	17	27	0.5	N/A	1, 5a
10D271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	680	175	270	3	N/A	1, 5a
10D301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	750	190	300	3	N/A	1, 5a
10D330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	120	20	33	0.5	N/A	1, 5a
10D331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	810	210	330	3	N/A	1, 5a
10D361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	890	230	360	3	N/A	1, 5a
10D390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	140	25	39	0.5	N/A	1, 5a
10D391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	970	250	390	3	N/A	1, 5a
10D431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1070	275	430	3	N/A	1, 5a
10D470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	170	30	47	0.5	N/A	1, 5a
10D471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1180	300	470	3	N/A	1, 5a
10D511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1260	320	510	3	N/A	1, 5a
10D560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	190	35	56	0.5	N/A	1, 5a
10D561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1380	350	560	3	N/A	1, 5a
10D621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1520	385	620	3	N/A	1, 5a
10D680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	210	40	68	0.5	N/A	1, 5a
10D681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1670	420	680	3	N/A	1, 5a
10D711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1740	440	710	3	N/A	1, 5a
10D751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1830	460	750	3	N/A	1, 5a
10D781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1940	485	780	3	N/A	1, 5a
10D820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	320	50	82	3	N/A	1, 5a
10D821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	2040	510	820	3	N/A	1, 5a
10D911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	2190	550	910	3	N/A	1, 5a
10D951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2280	575	950	3	N/A	1, 5a
14&101%AX	5	60	AC	1	n/a	-	85	Ld-Ld	-	310	60	100	3	n/a	1
14&102%AX	5	625	AC	1	n/a	-	85	Ld-Ld	-	2140	625	1000	3	n/a	1
14&112%AX	5	680	AC	1	n/a	-	85	Ld-Ld	-	2330	680	1100	3	n/a	1
14&121%AX	5	75	AC	1	n/a	-	85	Ld-Ld	-	360	75	120	3	n/a	1
14&122%AX	5	750	AC	1	n/a	-	85	Ld-Ld	-	2510	750	1200	3	n/a	1
14&151%AX	5	95	AC	1	n/a	-	85	Ld-Ld	-	440	95	150	3	n/a	1
14&152%AX	5	925	AC	1	n/a	-	85	Ld-Ld	-	3350	925	1500	3	n/a	1
14&180%AX	5	11	AC	1	n/a	-	85	Ld-Ld	-	100	11	18.5	1	n/a	1
14&181%AX	5	115	AC	1	n/a	-	85	Ld-Ld	-	510	115	180	3	n/a	1

14&182%AX	5	1000	AC	1	n/a	-	85	Ld-Ld	-	3760	1000	1800	3	n/a	1
14&201%AX	5	130	AC	1	n/a	-	85	Ld-Ld	-	550	130	205	3	n/a	1
14&220%AX	5	14	AC	1	n/a	-	85	Ld-Ld	-	120	14	22.5	1	n/a	1
14&221%AX	5	140	AC	1	n/a	-	85	Ld-Ld	-	590	140	220	3	n/a	1
14&241%AX	5	150	AC	1	n/a	-	85	Ld-Ld	-	640	150	246	3	n/a	1
14&270%AX	5	17	AC	1	n/a	-	85	Ld-Ld	-	150	17	27.5	1	n/a	1
14&271%AX	5	175	AC	1	n/a	-	85	Ld-Ld	-	720	175	283	3	n/a	1
14&301%AX	5	190	AC	1	n/a	-	85	Ld-Ld	-	750	190	300	3	n/a	1
14&330%AX	5	20	AC	1	n/a	-	85	Ld-Ld	-	170	20	33.5	1	n/a	1
14&331%AX	5	210	AC	1	n/a	-	85	Ld-Ld	-	810	210	330	3	n/a	1
14&361%AX	5	230	AC	1	n/a	-	85	Ld-Ld	-	870	230	360	3	n/a	1
14&390%AX	5	25	AC	1	n/a	-	85	Ld-Ld	-	200	25	39.5	1	n/a	1
14&391%AX	5	250	AC	1	n/a	-	85	Ld-Ld	-	980	250	410	3	n/a	1
14&431%AX	5	275	AC	1	n/a	-	85	Ld-Ld	-	1070	275	453	3	n/a	1
14&470%AX	5	30	AC	1	n/a	-	85	Ld-Ld	-	240	30	47.5	1	n/a	1
14&471%AX	5	300	AC	1	n/a	-	85	Ld-Ld	-	1100	300	470	3	n/a	1
14&511%AX	5	320	AC	1	n/a	-	85	Ld-Ld	-	1180	320	510	3	n/a	1
14&560%AX	5	35	AC	1	n/a	-	85	Ld-Ld	-	280	35	56.5	1	n/a	1
14&561%AX	5	350	AC	1	n/a	-	85	Ld-Ld	-	1290	350	560	3	n/a	1
14&621%AX	5	385	AC	1	n/a	-	85	Ld-Ld	-	1410	385	620	3	n/a	1
14&680%AX	5	40	AC	1	n/a	-	85	Ld-Ld	-	330	40	68.5	1	n/a	1
14&681%AX	5	420	AC	1	n/a	-	85	Ld-Ld	-	1530	420	680	3	n/a	1
14&751%AX	5	460	AC	1	n/a	-	85	Ld-Ld	-	1670	460	750	3	n/a	1
14&781%AX	5	485	AC	1	n/a	-	85	Ld-Ld	-	1720	485	780	3	n/a	1
14&820%AX	5	50	AC	1	n/a	-	85	Ld-Ld	-	260	50	82	3	n/a	1
14&821%AX	5	510	AC	1	n/a	-	85	Ld-Ld	-	1800	510	820	3	n/a	1
14&911%AX	5	550	AC	1	n/a	0	85	Ld-Ld	-	1970	550	910	3	n/a	1
14(e)101K	4CA	60	AC	1	N/A	-40	85	Ld-Ld	-	380	60	100	3	N/A	1,5a
14(e)121K	4CA	75	AC	1	N/A	-40	85	Ld-Ld	-	420	75	120	3	N/A	1,5a
14(e)151K	4CA	95	AC	1	N/A	-40	85	Ld-Ld	-	460	95	150	3	N/A	1,5a
14(e)181K	4CA	115	AC	1	N/A	-40	85	Ld-Ld	-	510	115	180	3	N/A	1,5a
14(e)201K	4CA	130	AC	1	N/A	-40	85	Ld-Ld	-	520	130	205	3	N/A	1,5a
14(e)221K	4CA	140	AC	1	N/A	-40	85	Ld-Ld	-	560	140	220	3	N/A	1,5a
14(e)271K	4CA	175	AC	1	N/A	-40	85	Ld-Ld	-	700	175	270	3	N/A	1,5a
14(e)301K	4CA	190	AC	1	N/A	-40	85	Ld-Ld	-	750	190	300	3	N/A	1,5a
14(e)331K	4CA	210	AC	1	N/A	-40	85	Ld-Ld	-	830	210	330	3	N/A	1,5a
14(e)361K	4CA	230	AC	1	N/A	-40	85	Ld-Ld	-	910	230	360	3	N/A	1,5a
14(e)391K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	980	250	390	3	N/A	1,5a
14(e)431K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1070	275	453	3	N/A	1,5a
14(e)471K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1160	300	470	3	N/A	1,5a
14(e)511K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1230	320	510	3	N/A	1,5a
14(e)561K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1340	350	560	3	N/A	1,5a
14(e)621K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1460	385	620	3	N/A	1,5a
14(e)681K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1590	420	680	3	N/A	1,5a
14(e)820K	4CA	50	AC	1	N/A	-40	85	Ld-Ld	-	360	50	82	3	N/A	1,5a
14D101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	370	60	100	3	N/A	1, 5a
14D102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2290	625	1000	3	N/A	1, 5a
14D112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2460	680	1100	3	N/A	1, 5a
14D121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	400	75	120	3	N/A	1, 5a

14D122K@	5	750	AC	1	N/A	-40	105	Ld-Ld	-	2760	750	1200	3	N/A	1, 5a
14D142K@	5	880	AC	1	N/A	-40	105	Ld-Ld	-	3320	880	1400	3	N/A	1, 5a
14D151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	450	95	150	3	N/A	1, 5a
14D152K@	5	940	AC	1	N/A	-40	105	Ld-Ld	-	3570	940	1500	3	N/A	1, 5a
14D162K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3830	1000	1600	3	N/A	1, 5a
14D180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	90	11	18	1	N/A	1, 5a
14D181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	490	115	180	3	N/A	1, 5a
14D182K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3830	1000	1800	3	N/A	1, 5a
14D201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	520	130	200	3	N/A	1, 5a
14D220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	110	14	22	1	N/A	1, 5a
14D221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	560	140	220	3	N/A	1, 5a
14D241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	590	150	240	3	N/A	1, 5a
14D270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	120	17	27	1	N/A	1, 5a
14D271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	680	175	270	3	N/A	1, 5a
14D301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	750	190	300	3	N/A	1,5a
14D330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	140	20	33	1	N/A	1, 5a
14D331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	800	210	330	3	N/A	1, 5a
14D361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	860	230	360	3	N/A	1, 5a
14D390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	170	25	39	1	N/A	1, 5a
14D391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	930	250	390	3	N/A	1, 5a
14D431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1010	275	430	3	N/A	1,5a
14D470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	190	30	47	1	N/A	1, 5a
14D471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1090	300	470	3	N/A	1, 5a
14D511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1150	320	510	3	N/A	1, 5a
14D560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	220	35	56	1	N/A	1, 5a
14D561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1250	350	560	3	N/A	1, 5a
14D621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1400	385	620	3	N/A	1, 5a
14D680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	250	40	68	1	N/A	1, 5a
14D681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1540	420	680	3	N/A	1, 5a
14D711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1630	440	710	3	N/A	1, 5a
14D751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1710	460	750	3	N/A	1, 5a
14D781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1820	485	780	3	N/A	1, 5a
14D820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	350	50	82	3	N/A	1, 5a
14D821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1920	510	820	3	N/A	1, 5a
14D911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	2050	550	910	3	N/A	1, 5a
14D951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2130	575	950	3	N/A	1, 5a
14H101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	370	60	100	3	N/A	1, 5a
14H102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2290	625	1000	3	N/A	1, 5a
14H112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2460	680	1100	3	N/A	1, 5a
14H121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	400	75	120	3	N/A	1, 5a
14H122K@	5	750	AC	1	N/A	-40	105	Ld-Ld	-	2760	750	1200	3	N/A	1,5a
14H142K@	5	880	AC	1	N/A	-40	105	Ld-Ld	-	3320	880	1400	3	N/A	1,5a
14H151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	450	95	150	3	N/A	1, 5a
14H152K@	5	940	AC	1	N/A	-40	105	Ld-Ld	-	3570	940	1500	3	N/A	1,5a
14H162K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3830	1000	1600	3	N/A	1,5a
14H180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	90	11	18	1	N/A	1, 5a
14H181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	490	115	180	3	N/A	1, 5a
14H182K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3830	1000	1800	3	N/A	1,5a
14H201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	520	130	200	3	N/A	1, 5a

14H220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	110	14	22	1	N/A	1, 5a
14H221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	560	140	220	3	N/A	1, 5a
14H241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	590	150	240	3	N/A	1, 5a
14H270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	120	17	27	1	N/A	1, 5a
14H271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	680	175	270	3	N/A	1, 5a
14H301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	750	190	300	3	N/A	1, 5a
14H330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	140	20	33	1	N/A	1, 5a
14H331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	800	210	330	3	N/A	1, 5a
14H361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	860	230	360	3	N/A	1, 5a
14H390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	170	25	39	1	N/A	1, 5a
14H391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	930	250	390	3	N/A	1, 5a
14H431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1010	275	430	3	N/A	1, 5a
14H470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	190	30	47	1	N/A	1, 5a
14H471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1090	300	470	3	N/A	1, 5a
14H511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1150	320	510	3	N/A	1, 5a
14H560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	220	35	56	1	N/A	1, 5a
14H561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1250	350	560	3	N/A	1, 5a
14H621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1400	385	620	3	N/A	1, 5a
14H680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	250	40	68	1	N/A	1, 5a
14H681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1540	420	680	3	N/A	1, 5a
14H711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1630	440	710	3	N/A	1, 5a
14H751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1710	460	750	3	N/A	1, 5a
14H781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1820	485	780	3	N/A	1, 5a
14H820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	350	50	82	3	N/A	1, 5a
14H821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1920	510	820	3	N/A	1, 5a
14H911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	2050	550	910	3	N/A	1, 5a
14H951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2130	575	950	3	N/A	1, 5a
20&101%AX	5	20	AC	1	n/a	0	85	Ld-Ld	-	140	20	33.5	1	n/a	1
20&102%AX	5	625	AC	1	n/a	0	85	Ld-Ld	-	2180	625	1000	5	n/a	1
20&181%AX	5	115	AC	1	n/a	0	85	Ld-Ld	-	500	115	180	5	n/a	1
20&301%AX	5	190	AC	1	n/a	0	85	Ld-Ld	-	790	190	300	5	n/a	1
20&330%AX	5	20	AC	1	n/a	0	85	Ld-Ld	-	140	20	33.5	1	n/a	1
20&331%AX	5	210	AC	1	n/a	0	85	Ld-Ld	-	870	210	330	5	n/a	1
20(e)101K	4CA	60	AC	1	N/A	-40	85	Ld-Ld	-	350	60	100	3	N/A	1,5a
20(e)121K	4CA	75	AC	1	N/A	-40	85	Ld-Ld	-	380	75	120	3	N/A	1,5a
20(e)151K	4CA	95	AC	1	N/A	-40	85	Ld-Ld	-	430	95	150	3	N/A	1,5a
20(e)180K	4CA	11	AC	1	N/A	-40	85	Ld-Ld	-	100	11	18.5	1	N/A	1,5a
20(e)181K	4CA	115	AC	1	N/A	-40	85	Ld-Ld	-	470	115	180	3	N/A	1,5a
20(e)201K	4CA	130	AC	1	N/A	-40	85	Ld-Ld	-	480	130	205	3	N/A	1,5a
20(e)220K	4CA	14	AC	1	N/A	-40	85	Ld-Ld	-	120	14	22.5	1	N/A	1,5a
20(e)221K	4CA	140	AC	1	N/A	-40	85	Ld-Ld	-	520	140	220	3	N/A	1,5a
20(e)270K	4CA	17	AC	1	N/A	-40	85	Ld-Ld	-	140	17	27.5	1	N/A	1,5a
20(e)271K	4CA	175	AC	1	N/A	-40	85	Ld-Ld	-	640	175	270	3	N/A	1,5a
20(e)301K	4CA	190	AC	1	N/A	-40	85	Ld-Ld	-	700	190	300	3	N/A	1,5a
20(e)330K	4CA	20	AC	1	N/A	-40	85	Ld-Ld	-	150	20	33	1	N/A	1,5a
20(e)331K	4CA	210	AC	1	N/A	-40	85	Ld-Ld	-	770	210	330	3	N/A	1,5a
20(e)361K	4CA	230	AC	1	N/A	-40	85	Ld-Ld	-	840	230	360	3	N/A	1,5a
20(e)390K	4CA	25	AC	1	N/A	-40	85	Ld-Ld	-	170	25	39	1	N/A	1,5a
20(e)391K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	910	250	390	3	N/A	1,5a

20(e)431K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	990	275	453	3	N/A	1,5a
20(e)470K	4CA	30	AC	1	N/A	-40	85	Ld-Ld	-	200	30	47	1	N/A	1,5a
20(e)471K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1070	300	470	3	N/A	1,5a
20(e)511K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1140	320	510	3	N/A	1,5a
20(e)560K	4CA	35	AC	1	N/A	-40	85	Ld-Ld	-	220	35	56	1	N/A	1,5a
20(e)561K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1240	350	560	3	N/A	1,5a
20(e)621K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1350	385	620	3	N/A	1,5a
20(e)680K	4CA	40	AC	1	N/A	-40	85	Ld-Ld	-	240	40	68.5	1	N/A	1,5a
20(e)681K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1470	420	680	3	N/A	1,5a
20(e)751K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1580	460	750	3	N/A	1,5a
20(e)820K	4CA	50	AC	1	N/A	-40	85	Ld-Ld	-	330	50	82	3	N/A	1,5a
20D101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	420	60	100	3	N/A	1,5a
20D102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2230	625	1000	3	N/A	1,5a
20D112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2450	680	1100	3	N/A	1,5a
20D121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	450	75	120	3	N/A	1,5a
20D122K@	5	750	AC	1	N/A	-40	105	Ld-Ld	-	2750	750	1200	3	N/A	1,5a
20D142K@	5	880	AC	1	N/A	-40	105	Ld-Ld	-	3310	880	1400	3	N/A	1,5a
20D151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	500	95	150	3	N/A	1,5a
20D152K@	5	940	AC	1	N/A	-40	105	Ld-Ld	-	3560	940	1500	3	N/A	1,5a
20D162K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3820	1000	1600	3	N/A	1,5a
20D180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	90	11	18	1	N/A	1,5a
20D181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	540	115	180	3	N/A	1,5a
20D182K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3820	1000	1800	3	N/A	1,5a
20D201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	570	130	200	3	N/A	1,5a
20D220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	100	14	22	1	N/A	1,5a
20D221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	610	140	220	3	N/A	1,5a
20D241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	650	150	240	3	N/A	1,5a
20D270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	120	17	27	1	N/A	1,5a
20D271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	740	175	270	3	N/A	1,5a
20D301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	820	190	300	3	N/A	1,5a
20D330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	130	20	33	1	N/A	1,5a
20D331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	880	210	330	3	N/A	1,5a
20D361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	930	230	360	3	N/A	1,5a
20D390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	160	25	39	1	N/A	1,5a
20D391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	980	250	390	3	N/A	1,5a
20D431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1050	275	430	3	N/A	1,5a
20D470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	180	30	47	1	N/A	1,5a
20D471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1110	300	470	3	N/A	1,5a
20D511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1160	320	510	3	N/A	1,5a
20D560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	210	35	56	1	N/A	1,5a
20D561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1240	350	560	3	N/A	1,5a
20D621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1430	385	620	3	N/A	1,5a
20D680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	230	40	68	1	N/A	1,5a
20D681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1530	420	680	3	N/A	1,5a
20D711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1590	440	710	3	N/A	1,5a
20D751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1640	460	750	3	N/A	1,5a
20D781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1700	485	780	3	N/A	1,5a
20D820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	400	50	82	3	N/A	1,5a
20D821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1770	510	820	3	N/A	1,5a

20D911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	1930	550	910	3	N/A	1,5a
20D951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2130	575	950	3	N/A	1,5a
20H101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	420	60	100	5	N/A	1,5a
20H102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2230	625	1000	5	N/A	1,5a
20H112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2450	680	1100	5	N/A	1,5a
20H121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	450	75	120	5	N/A	1,5a
20H122K@	5	750	AC	1	N/A	-40	105	Ld-Ld	-	2750	750	1200	5	N/A	1,5a
20H142K@	5	880	AC	1	N/A	-40	105	Ld-Ld	-	3310	880	1400	5	N/A	1,5a
20H151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	500	95	150	5	N/A	1,5a
20H152K@	5	940	AC	1	N/A	-40	105	Ld-Ld	-	3560	940	1500	5	N/A	1,5a
20H162K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3820	1000	1600	5	N/A	1,5a
20H180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	90	11	18	1.5	N/A	1,5a
20H181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	540	115	180	5	N/A	1,5a
20H182K@	5	1000	AC	1	N/A	-40	105	Ld-Ld	-	3820	1000	1800	5	N/A	1,5a
20H201K@	5	130	AC	1	n/a	-40	105	Ld-Ld	-	570	130	200	5	n/a	1,5a
20H220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	100	14	22	1.5	N/A	1,5a
20H221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	610	140	220	5	N/A	1,5a
20H241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	650	150	240	5	N/A	1,5a
20H270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	120	17	27	1.5	N/A	1,5a
20H271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	740	175	270	5	N/A	1,5a
20H301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	820	190	300	5	N/A	1,5a
20H330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	130	20	33	1.5	N/A	1,5a
20H331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	880	210	330	5	N/A	1,5a
20H361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	930	230	360	5	N/A	1,5a
20H390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	160	25	39	1.5	N/A	1,5a
20H391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	980	250	390	5	N/A	1,5a
20H431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1050	275	430	5	N/A	1,5a
20H470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	180	30	47	1.5	N/A	1,5a
20H471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1110	300	470	5	N/A	1,5a
20H511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1160	320	510	5	N/A	1,5a
20H560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	210	35	56	1.5	N/A	1,5a
20H561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1240	350	560	5	N/A	1,5a
20H621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1430	385	620	5	N/A	1,5a
20H680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	230	40	68	1.5	N/A	1,5a
20H681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1530	420	680	5	N/A	1,5a
20H711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1590	440	710	5	N/A	1,5a
20H751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1640	460	750	5	N/A	1,5a
20H781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1700	485	780	5	N/A	1,5a
20H820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	400	50	82	5	N/A	1,5a
20H821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1770	510	820	5	N/A	1,5a
20H911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	1930	550	910	5	N/A	1,5a
20H951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2130	575	950	5	N/A	1,5a
25&102%AX	5	625	AC	1	n/a	0	85	Ld-Ld	-	2330	625	1000	10	n/a	1
25&152%AX	5	925	AC	1	n/a	-	85	Ld-Ld	-	3060	925	1500	10	n/a	1
25(e)101K	4CA	60	AC	1	N/A	-40	85	Ld-Ld	-	360	60	100	5	N/A	1,5a
25(e)121K	4CA	75	AC	1	N/A	-40	85	Ld-Ld	-	390	75	120	5	N/A	1,5a
25(e)151K	4CA	95	AC	1	N/A	-40	85	Ld-Ld	-	430	95	150	5	N/A	1,5a
25(e)181K	4CA	115	AC	1	N/A	-40	85	Ld-Ld	-	470	115	180	5	N/A	1,5a
25(e)201K	4CA	130	AC	1	N/A	-40	85	Ld-Ld	-	500	130	205	5	N/A	1,5a

25(e)221K	4CA	140	AC	1	N/A	-40	85	Ld-Ld	-	540	140	220	5	N/A	1,5a
25(e)271K	4CA	175	AC	1	N/A	-40	85	Ld-Ld	-	660	175	270	5	N/A	1,5a
25(e)301K	4CA	190	AC	1	N/A	-40	85	Ld-Ld	-	720	190	300	5	N/A	1,5a
25(e)331K	4CA	210	AC	1	N/A	-40	85	Ld-Ld	-	790	210	330	5	N/A	1,5a
25(e)361K	4CA	230	AC	1	N/A	-40	85	Ld-Ld	-	860	230	360	5	N/A	1,5a
25(e)391K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	930	250	390	5	N/A	1,5a
25(e)431K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1010	275	453	5	N/A	1,5a
25(e)471K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1090	300	470	5	N/A	1,5a
25(e)511K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1150	320	510	5	N/A	1,5a
25(e)561K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1250	350	560	5	N/A	1,5a
25(e)621K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1370	385	620	5	N/A	1,5a
25(e)681K	4CA	250	AC	1	N/A	-40	85	Ld-Ld	-	1480	420	680	5	N/A	1,5a
25(e)820K	4CA	50	AC	1	N/A	-40	85	Ld-Ld	-	340	50	82	5	N/A	1,5a
25D101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	420	60	100	10	N/A	1,5a
25D102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2320	625	1000	10	N/A	1,5a
25D112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2490	680	1100	10	N/A	1,5a
25D121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	450	75	120	10	N/A	1,5a
25D122K@	5	750	AC	1	N/A	-40	105	Ld-Ld	-	2750	750	1200	10	N/A	1,5a
25D151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	490	95	150	10	N/A	1,5a
25D180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	100	11	18	2	N/A	1,5a
25D181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	530	115	180	10	N/A	1,5a
25D201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	560	130	200	10	N/A	1,5a
25D220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	120	14	22	2	N/A	1,5a
25D221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	600	140	220	10	N/A	1,5a
25D241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	630	150	240	10	N/A	1,5a
25D270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	140	17	27	2	N/A	1,5a
25D271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	720	175	270	10	N/A	1,5a
25D301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	800	190	300	10	N/A	1,5a
25D330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	150	20	33	2	N/A	1,5a
25D331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	850	210	330	10	N/A	1,5a
25D361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	920	230	360	10	N/A	1,5a
25D390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	180	25	39	2	N/A	1,5a
25D391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	1000	250	390	10	N/A	1,5a
25D431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1090	275	430	10	N/A	1,5a
25D470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	210	30	47	2	N/A	1,5a
25D471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1180	300	470	10	N/A	1,5a
25D511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1250	320	510	10	N/A	1,5a
25D560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	240	35	56	2	N/A	1,5a
25D561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1360	350	560	10	N/A	1,5a
25D621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1480	385	620	10	N/A	1,5a
25D680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	270	40	68	2	N/A	1,5a
25D681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1610	420	680	10	N/A	1,5a
25D711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1680	440	710	10	N/A	1,5a
25D751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1750	460	750	10	N/A	1,5a
25D781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1840	485	780	10	N/A	1,5a
25D820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	400	50	82	10	N/A	1,5a
25D821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1930	510	820	10	N/A	1,5a
25D911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	2070	550	910	10	N/A	1,5a
25D951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2150	575	950	10	N/A	1,5a

25H101K@	5	60	AC	1	N/A	-40	105	Ld-Ld	-	420	60	100	10	N/A	1, 5a
25H102K@	5	625	AC	1	N/A	-40	105	Ld-Ld	-	2320	625	1000	10	N/A	1, 5a
25H112K@	5	680	AC	1	N/A	-40	105	Ld-Ld	-	2490	680	1100	10	N/A	1, 5a
25H121K@	5	75	AC	1	N/A	-40	105	Ld-Ld	-	450	75	120	10	N/A	1, 5a
25H122K@	5	750	AC	1	N/A	-40	105	Ld-Ld	-	2750	750	1200	10	N/A	1, 5a
25H151K@	5	95	AC	1	N/A	-40	105	Ld-Ld	-	490	95	150	10	N/A	1, 5a
25H180K@	5	11	AC	1	N/A	-40	105	Ld-Ld	-	100	11	18	2	N/A	1, 5a
25H181K@	5	115	AC	1	N/A	-40	105	Ld-Ld	-	530	115	180	10	N/A	1, 5a
25H201K@	5	130	AC	1	N/A	-40	105	Ld-Ld	-	560	130	200	10	N/A	1, 5a
25H220K@	5	14	AC	1	N/A	-40	105	Ld-Ld	-	120	14	22	2	N/A	1, 5a
25H221K@	5	140	AC	1	N/A	-40	105	Ld-Ld	-	600	140	220	10	N/A	1, 5a
25H241K@	5	150	AC	1	N/A	-40	105	Ld-Ld	-	630	150	240	10	N/A	1, 5a
25H270K@	5	17	AC	1	N/A	-40	105	Ld-Ld	-	140	17	27	2	N/A	1, 5a
25H271K@	5	175	AC	1	N/A	-40	105	Ld-Ld	-	720	175	270	10	N/A	1, 5a
25H301K@	5	190	AC	1	N/A	-40	105	Ld-Ld	-	800	190	300	10	N/A	1, 5a
25H330K@	5	20	AC	1	N/A	-40	105	Ld-Ld	-	150	20	33	2	N/A	1, 5a
25H331K@	5	210	AC	1	N/A	-40	105	Ld-Ld	-	850	210	330	10	N/A	1, 5a
25H361K@	5	230	AC	1	N/A	-40	105	Ld-Ld	-	920	230	360	10	N/A	1, 5a
25H390K@	5	25	AC	1	N/A	-40	105	Ld-Ld	-	180	25	39	2	N/A	1, 5a
25H391K@	5	250	AC	1	N/A	-40	105	Ld-Ld	-	1000	250	390	10	N/A	1, 5a
25H431K@	5	275	AC	1	N/A	-40	105	Ld-Ld	-	1090	275	430	10	N/A	1, 5a
25H470K@	5	30	AC	1	N/A	-40	105	Ld-Ld	-	210	30	47	2	N/A	1, 5a
25H471K@	5	300	AC	1	N/A	-40	105	Ld-Ld	-	1180	300	470	10	N/A	1, 5a
25H511K@	5	320	AC	1	N/A	-40	105	Ld-Ld	-	1250	320	510	10	N/A	1, 5a
25H560K@	5	35	AC	1	N/A	-40	105	Ld-Ld	-	240	35	56	2	N/A	1, 5a
25H561K@	5	350	AC	1	N/A	-40	105	Ld-Ld	-	1360	350	560	10	N/A	1, 5a
25H621K@	5	385	AC	1	N/A	-40	105	Ld-Ld	-	1480	385	620	10	N/A	1,5a
25H680K@	5	40	AC	1	N/A	-40	105	Ld-Ld	-	270	40	68	2	N/A	1, 5a
25H681K@	5	420	AC	1	N/A	-40	105	Ld-Ld	-	1610	420	680	10	N/A	1,5a
25H711K@	5	440	AC	1	N/A	-40	105	Ld-Ld	-	1680	440	710	10	N/A	1,5a
25H751K@	5	460	AC	1	N/A	-40	105	Ld-Ld	-	1750	460	750	10	N/A	1,5a
25H781K@	5	485	AC	1	N/A	-40	105	Ld-Ld	-	1840	485	780	10	N/A	1,5a
25H820K@	5	50	AC	1	N/A	-40	105	Ld-Ld	-	400	50	82	10	N/A	1, 5a
25H821K@	5	510	AC	1	N/A	-40	105	Ld-Ld	-	1930	510	820	10	N/A	1,5a
25H911K@	5	550	AC	1	N/A	-40	105	Ld-Ld	-	2070	550	910	10	N/A	1, 5a
25H951K@	5	575	AC	1	N/A	-40	105	Ld-Ld	-	2150	575	950	10	N/A	1,5a
25D Series															
25&561%AX	5	350	AC	1	n/a	-	85	Ld-Ld	-	1380	350	560	10	n/a	1
25&781%AX	5	485	AC	1	n/a	-	85	Ld-Ld	-	1820	485	780	10	n/a	1
25D or 25H Series															
25&112%AX	5	680	AC	1	n/a	-	85	Ld-Ld	-	2500	680	1100	10	n/a	1
25&122%AX	5	750	AC	1	n/a	-	85	Ld-Ld	-	2670	750	1200	10	n/a	1
25&182%AX	5	1000	AC	1	n/a	-	85	Ld-Ld	-	3960	1000	1800	10	n/a	1
25&201%AX	5	130	AC	1	n/a	-	85	Ld-Ld	-	500	130	205	10	n/a	1
25&221AX	5	140	AC	1	n/a	-	85	Ld-Ld	-	580	140	220	10	n/a	1
25&241%AX	5	660	AC	1	n/a	-	85	Ld-Ld	-	660	150	246	10	n/a	1
25&271%AX	5	740	AC	1	n/a	-	85	Ld-Ld	-	740	175	283	10	n/a	1
25&301%AX	5	820	AC	1	n/a	-	85	Ld-Ld	-	820	190	300	10	n/a	1
25&331%AX	5	900	AC	1	n/a	-	85	Ld-Ld	-	900	210	330	10	n/a	1

25&361%AX	5	230	AC	1	n/a	-	85	Ld-Ld	-	980	230	360	10	n/a	1
25&391%AX	5	250	AC	1	n/a	-	85	Ld-Ld	-	1060	250	410	10	n/a	1
25&431%AX	5	275	AC	1	n/a	-	85	Ld-Ld	-	1140	275	453	10	n/a	1
25&471%AX	5	300	AC	1	n/a	-	85	Ld-Ld	-	1220	300	470	10	n/a	1
25&511%AX	5	320	AC	1	n/a	-	85	Ld-Ld	-	1300	320	510	10	n/a	1
25&621%AX	5	385	AC	1	n/a	-	85	Ld-Ld	-	1460	385	620	10	n/a	1
25&681%AX	5	420	AC	1	n/a	-	85	Ld-Ld	-	1540	420	680	10	n/a	1
25&711%AX	5	440	AC	1	n/a	-	85	Ld-Ld	-	1580	440	715	10	n/a	1
25&751%AX	5	460	AC	1	n/a	-	85	Ld-Ld	-	1650	460	750	10	n/a	1
25&821%AX	5	510	AC	1	n/a	-	85	Ld-Ld	-	1990	510	820	10	n/a	1
25&911%AX	5	550	AC	1	n/a	-	85	Ld-Ld	-	2160	550	910	10	n/a	1
20D Series															
20&390%AX	5	25	AC	1	n/a	-	85	Ld-Ld	-	160	25	39.5	5	n/a	1
20D or 20H Series															
20&112%AX	5	680	AC	1	n/a	-	85	Ld-Ld	-	2290	680	1100	5	n/a	1
20&121%AX	5	75	AC	1	n/a	-	85	Ld-Ld	-	380	75	120	5	n/a	1
20&122%AX	5	750	AC	1	n/a	-	85	Ld-Ld	-	2410	750	1200	5	n/a	1
20&151%AX	5	95	AC	1	n/a	-	85	Ld-Ld	-	440	95	150	5	n/a	1
20&152%AX	5	925	AC	1	n/a	-	85	Ld-Ld	-	3190	925	1500	5	n/a	1
20&180%AX	5	11	AC	1	n/a	-	85	Ld-Ld	-	80	11	18.5	1	n/a	1
20&182%AX	5	1000	AC	1	n/a	-	85	Ld-Ld	-	3520	1000	1800	5	n/a	1
20&201%AX	5	130	AC	1	n/a	-	85	Ld-Ld	-	470	130	205	5	n/a	1
20&220%AX	5	14	AC	1	n/a	-	85	Ld-Ld	-	100	14	22.5	1	n/a	1
20&221%AX	5	140	AC	1	n/a	-	85	Ld-Ld	-	550	140	220	5	n/a	1
20&241%AX	5	150	AC	1	n/a	-	85	Ld-Ld	-	630	150	246	5	n/a	1
20&270%AX	5	17	AC	1	n/a	-	85	Ld-Ld	-	120	17	27.5	1	n/a	1
20&271%AX	5	175	AC	1	n/a	-	85	Ld-Ld	-	710	175	283	5	n/a	1
20&361%AX	5	230	AC	1	n/a	-	85	Ld-Ld	-	950	230	360	5	n/a	1
20&391%AX	5	250	AC	1	n/a	-	85	Ld-Ld	-	1030	250	410	1	n/a	1
20&431%AX	5	275	AC	1	n/a	-	85	Ld-Ld	-	1110	275	453	5	n/a	1
20&470%AX	5	30	AC	1	n/a	-	85	Ld-Ld	-	180	30	47.5	1	n/a	1
20&471%AX	5	300	AC	1	n/a	-	85	Ld-Ld	-	1190	300	470	5	n/a	1
20&511%AX	5	320	AC	1	n/a	-	85	Ld-Ld	-	1270	320	510	5	n/a	1
20&560%AX	5	35	AC	1	n/a	-	85	Ld-Ld	-	200	35	56.5	1	n/a	1
20&561%AX	5	350	AC	1	n/a	-	85	Ld-Ld	-	1350	350	560	5	n/a	1
20&621%AX	5	385	AC	1	n/a	-	85	Ld-Ld	-	1430	385	620	5	n/a	1
20&680%AX	5	40	AC	1	n/a	-	85	Ld-Ld	-	220	40	68.5	5	n/a	1
20&681%AX	5	420	AC	1	n/a	-	85	Ld-Ld	-	1490	420	680	5	n/a	1
20&711%AX	5	440	AC	1	n/a	-	85	Ld-Ld	-	1600	440	715	5	n/a	1
20&751%AX	5	460	AC	1	n/a	-	85	Ld-Ld	-	1720	460	750	5	n/a	1
20&781%AX	5	485	AC	1	n/a	-	85	Ld-Ld	-	1830	485	780	5	n/a	1
20&820%AX	5	50	AC	1	n/a	-	85	Ld-Ld	-	250	50	82	5	n/a	1
20&821%AX	5	510	AC	1	n/a	-	85	Ld-Ld	-	1950	510	820	5	n/a	1
20&911%AX	5	550	AC	1	n/a	-	85	Ld-Ld	-	2060	550	910	5	n/a	1

Notes:

1. Suitable for Factory wiring only.
2. Suitable for Field and Factory wiring.
3. Series External Impedance required, see Electrical Ratings in the Recognition report.
4. Series External Overcurrent Protection required, see Electrical Ratings in the Recognition report.

5. Body of discrete component metal-oxide varistors (MOVs) flammability:

- a) Min. V-0 or VTM-0.
- b) Min. V-1 or VTM-1.
- c) Complies with IEC 60950-1, Edition 2.2, Annex Q/IEC62368-1 Annex G.8.2 needle flame testing requirements.
- d) Complies with IEC 60065, Edition 7.2, Annex G.1.1 needle flame testing requirements.

SPDs investigated for Type 1 applications are automatically suitable for Type 2 applications and may be marked for SPD Type 1 and/or Type 2 applications. SPDs only marked "SPD Type 2" are not suitable for Type 1 applications.

Where a minimum ambient temperature is not specified, assume 0°C unless the product is marked otherwise or with an Outdoor use Environmental Rating. See Electrical Equipment for Use in Ordinary Locations (AALZ) for details regarding Environmental Ratings.

% - May be K, J or V



& - Maybe D or H

(e) - M, N or E

@ - may be followed by multiple characters, each character is B to O, Q to Z (No A or P) or 0 thru 9

Note - All model may be suffixed by X, where X may be blank, A thru Z or 0 thru 9.

X - Maybe blank, -, one character or several characters, any character from A to Z or number from 0 to 9 except for A, AP or -P

Marking: Company name or trademark , model designation and the Recognized Component Mark,  on the product or on the smallest unit container in which the product is packaged.

Last Updated on 2017-04-05

[Questions?](#)

[Print this page](#)

[Terms of Use](#)

[Page Top](#)

◆ 2017 UL LLC

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2017 UL LLC".