

20 to 200V, 5A Schottky Barrier Rectifiers

Features

- ✧ Low power loss,high efficiency
- ✧ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ✧ For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- ✧ Guardring for over voltage protection
- ✧ High temperature soldering guaranteed: 260°C/10 seconds at terminals

Mechanical Data

- ✧ Molded plastic over sky die
- ✧ JEDEC DO-214AC
- ✧ Color band denotes cathode end
- ✧ Handling precaution:None
- ✧ Weight: 0.0026 oz., 0.075 g



Circuit Diagram



SMA

Absolute Maximum Rating ($T_A = 25^\circ\text{C}$, unless otherwise specified)

Parameter	SYMBOLS	OVB							UNITS
		520A	540A	560A	580A	5100A	5150A	5200A	
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current at T _L =100° C	I _(AV)	5.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	100.0							A
Typical thermal resistance	R _{θJA}	80.0							°C/W
Operating junction temperature range	T _J	-55 to +150			-55 to +175				°C
Storage temperature range	T _{STG}	-55 to +150							°C

Electrical Characteristics ($T_A = 25^\circ\text{C}$, unless otherwise specified)

Parameter	SYMBOLS	OVB							UNITS
		520A	540A	560A	580A	5100A	5150A	5200A	
Maximum instantaneous forward voltage at 5.0A	V_F	0.55		0.70	0.85		0.95		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	I_R			0.2 10		0.05 5			mA

Typical Characteristics ($T_A = 25^\circ\text{C}$, unless otherwise specified)

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

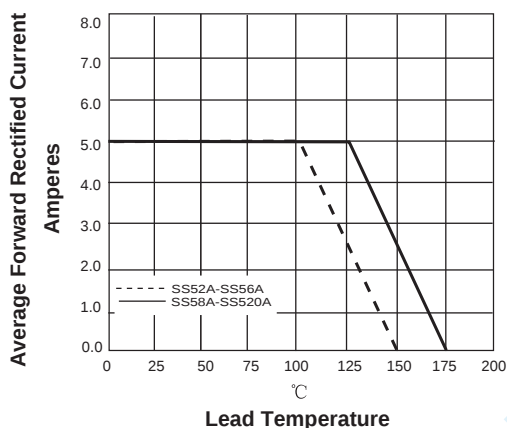


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

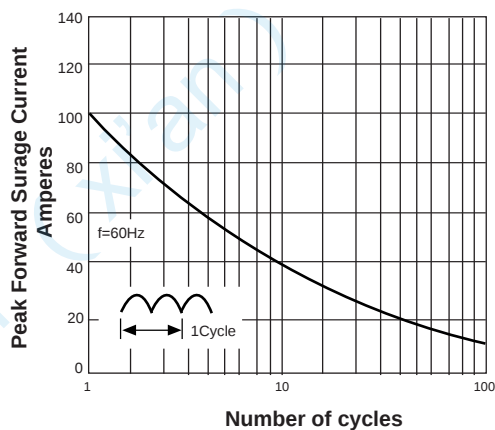


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

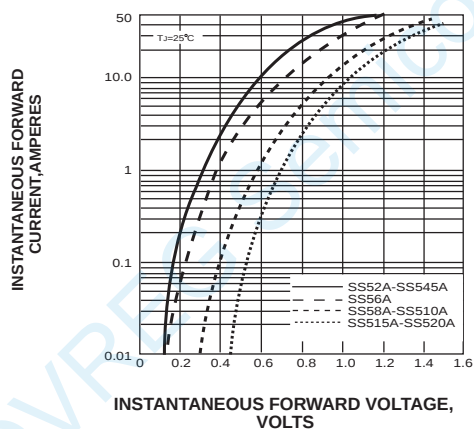
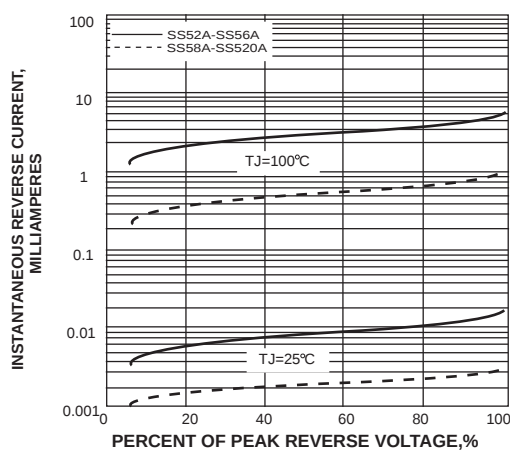
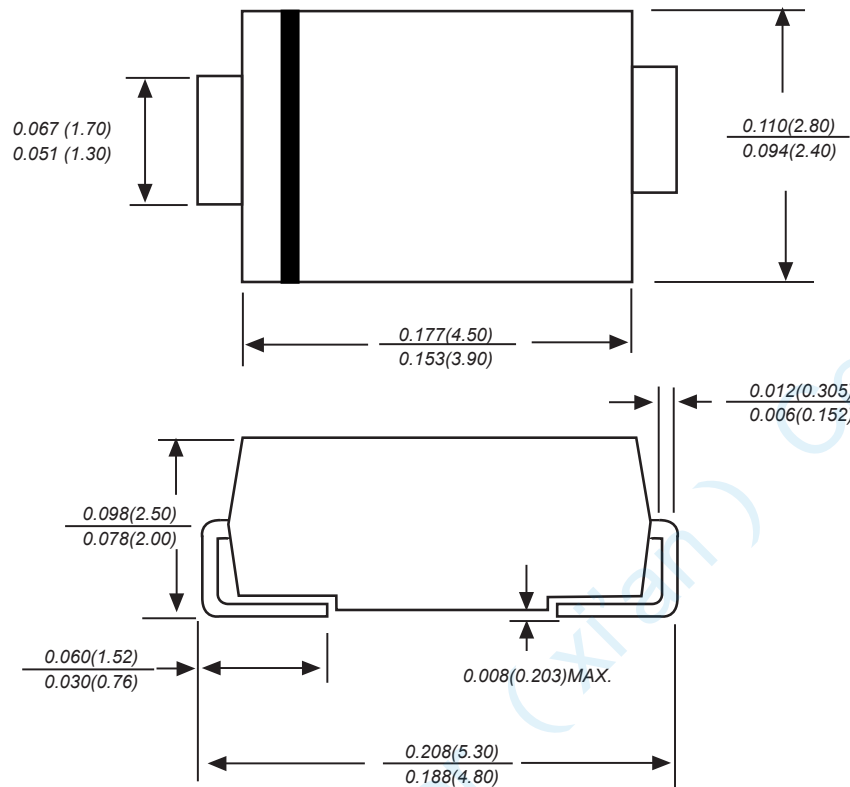


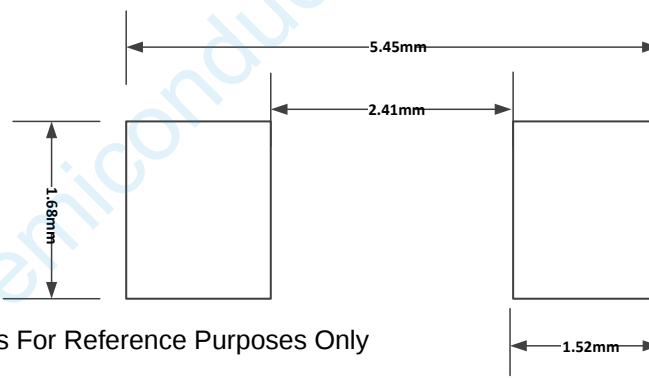
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Information



Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



X: Voltage Code
 2 --- V_{RRM}=20V
 4 --- V_{RRM}=40V
 6 --- V_{RRM}=60V
 8 --- V_{RRM}=80V
 10 --- V_{RRM}=100V
 15 --- V_{RRM}=150V
 20 --- V_{RRM}=200V

Ordering Information

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
OV520A Series	11'	278	5	285	10	355*310*310	80
	13'	330	7.5	340	15	360*360*360	120