

20 to 200V, 3A 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-214AA
- ✧ Color band denotes cathode end
- ✧ Handling precaution:None
- ✧ Weight: 0.0035 oz., 0.098 g



Circuit Diagram



SMB

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

Parameter Symbol	symbol	OVB 320B	OVB 330B	OVB 345B	OVB 360B	OVB 380B	OVB 3100B	OVB 3150B	OVB 3200B	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	45	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	31.5	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	45	60	80	100	150	200	V
Maximum average forward rectified current @ $T_L=100^\circ\text{C}$ (See fig. 1)	$I_F(AV)$	3.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100								A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	60								$^\circ\text{C/W}$
Operating junction and storage temperature rang	T_J, T_{STG}	-55 to +150								$^\circ\text{C}$

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

Parameter Symbol	symbol	OVB 320B	OVB 330B	OVB 345B	OVB 360B	OVB 380B	OVB 3100B	OVB 3150B	OVB 3200B	Unit
Maximum instantaneous forward voltage at 3.0A	V _F	0.50			0.70	0.85		0.95		v
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TA = 100°C	IR	0.2 10.0			0.05 5					mA

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

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

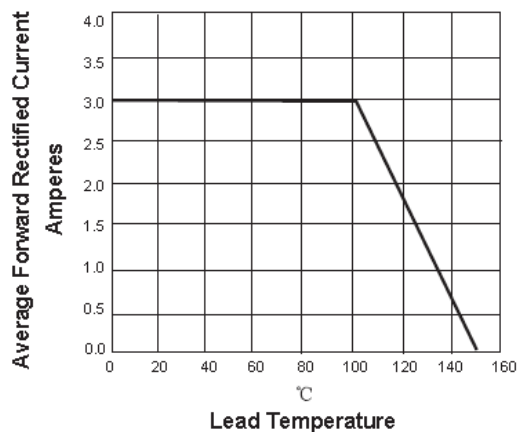


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

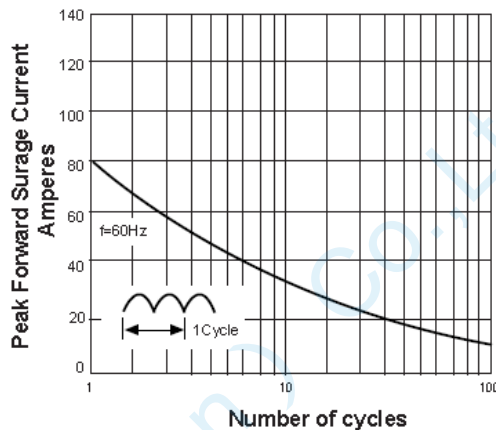


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

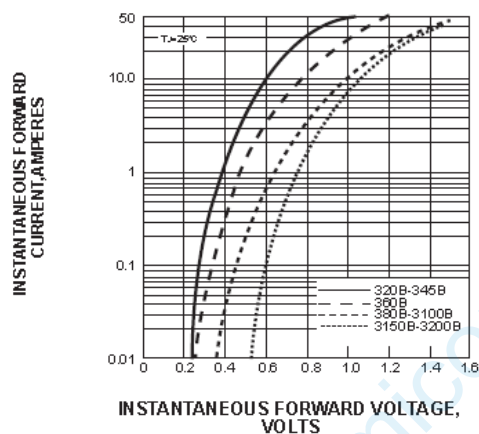
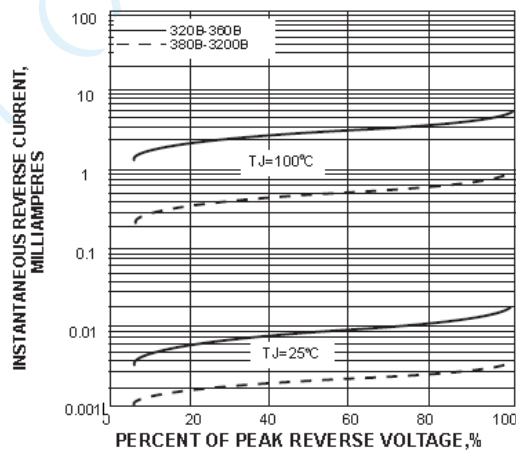
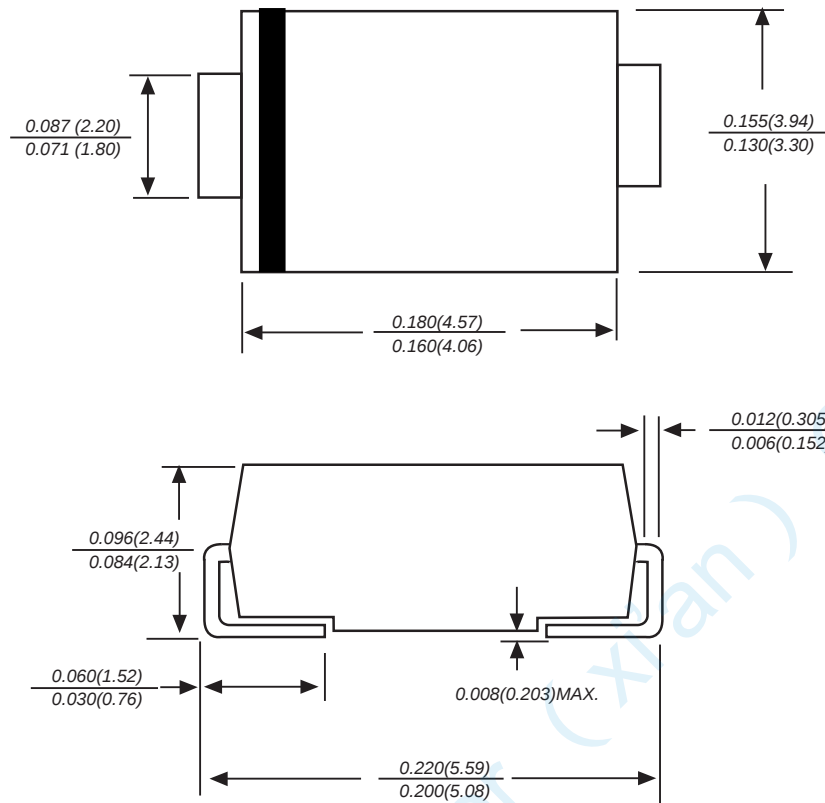


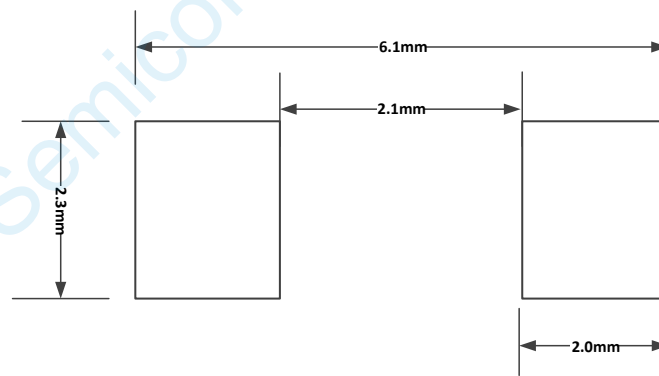
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Package Information

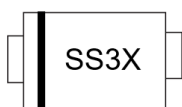


Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only

Marking



X: Voltage Code
2 ---- V_{RRM}=20V
4 ---- V_{RRM}=30V
45 ---- V_{RRM}=45V
6 ---- V_{RRM}=60V
8 ---- V_{RRM}=80V
10 ---- V_{RRM}=100V
15 ---- V_{RRM}=150V
20 ---- V_{RRM}=200V

Ordering Information

Part number	Package	Type	Reel size	MOQ	Packaging specification
OVB320B Series	DO-214AA	T/R	13 inch	3k/reel	EIA STD RS-481