

SMBF Plastic-Encapsulate Diodes

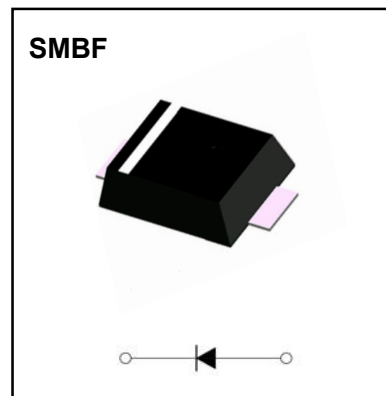
Super Fast Recovery Rectifier Diode

Features

- I_O 5A
- V_{RRM} 800V
- High surge current capability
- Glass passivated chip
- Polarity: Color band denotes cathode

Applications

- Rectifier



Parameter	SYMBOLS	ES5KBF	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	800	V
Maximum RMS voltage	V_{RMS}	560	V
Maximum DC blocking voltage	V_{DC}	800	V
Maximum average forward rectified current at $T_L=100^{\circ}C$	$I_{(AV)}$	5.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120.0	A
Maximum instantaneous forward voltage at 5.0A	V_F	2.0	V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	I_R	5.0 500	μA
Maximum reverse recovery time(Note 1)	T_{rr}	35	ns
Typical junction capacitance (Note2)	C_J	75.0	pF
Typical thermal resistance	R_{qJA}	85.0	$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

Note: 1.Reverse recovery time test condition: $I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

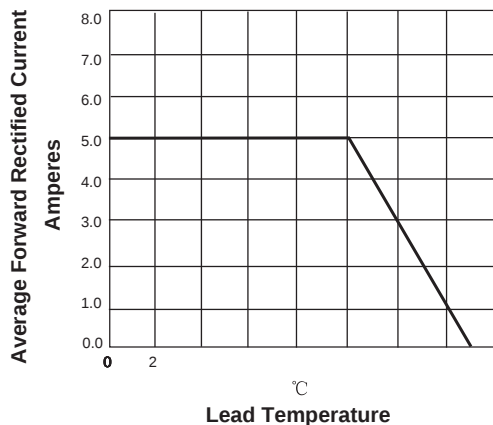


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

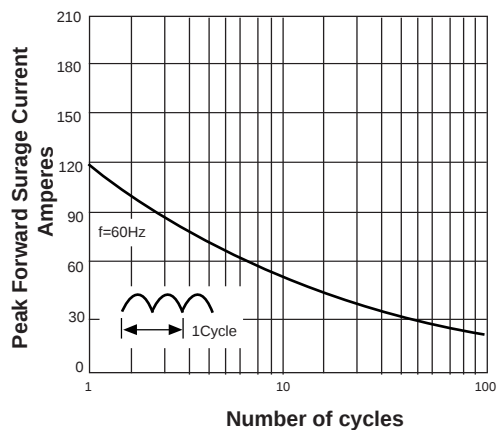


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

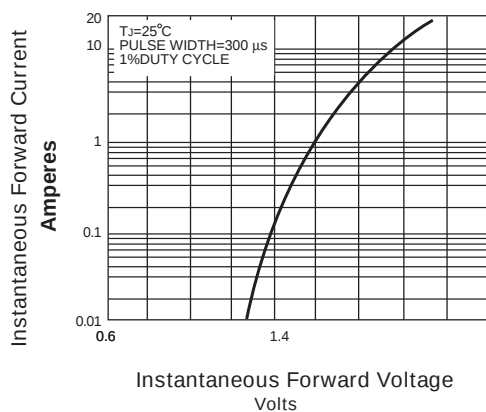
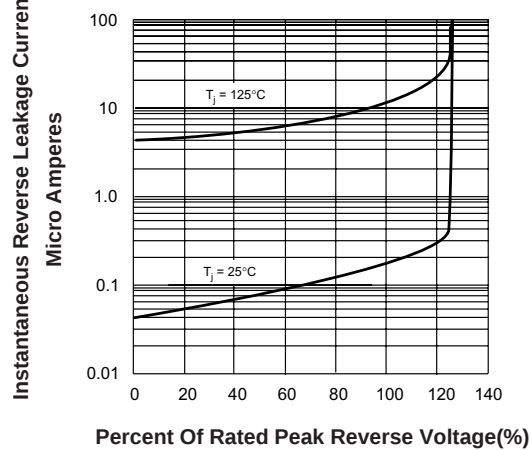


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



SMBF Package Outline Dimensions

