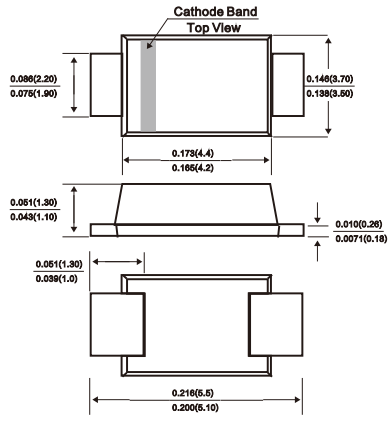
FEATURES

- Metal silicon junction,majority carrier conduction
- For surface mounted applications
- Low power loss,high efficiency
- High forward surge current capability
- For use in low voltage,high frequency inverters, free wheeling,and polarity protection applicatlons

SMBF



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC SMBF molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026
Mounting Position: Any
Weight:57mg/0.002oz

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	SS 52BF	SS 54BF	SS 56BF	SS 58BF	SS 510BF	SS 515BF	SS 520BF	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	VOLTS
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	VOLTS
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	VOLTS
Maximum average forward rectified current at T_L(see fig.1)	$I_{(AV)}$	5.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.45	0.55	0.70	0.85		0.95		Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	1.0 50							mA
Typical junction capacitance (NOTE 1)	C_J	800		500					pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40.0							°C/W
Operating junction temperature range	T_J,	-50 to +125							°C
Storage temperature range	T_{STG}	-50 to +150							°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas

Fig.1 Forward Current Derating Curve

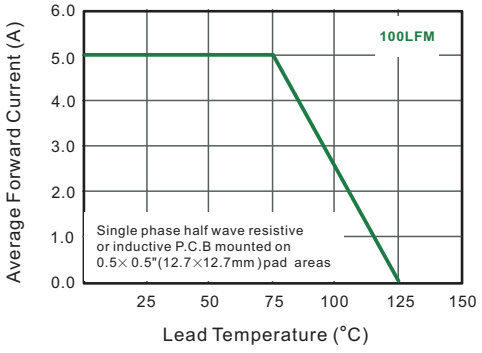


Fig.2 Typical Reverse Characteristics

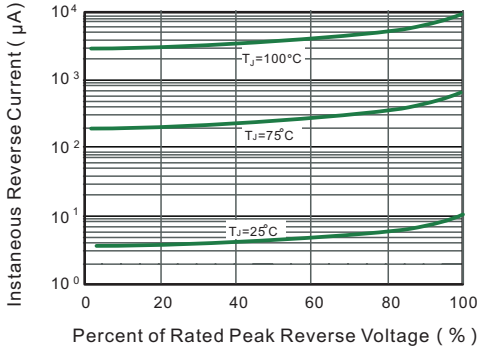


Fig.3 Typical Forward Characteristic

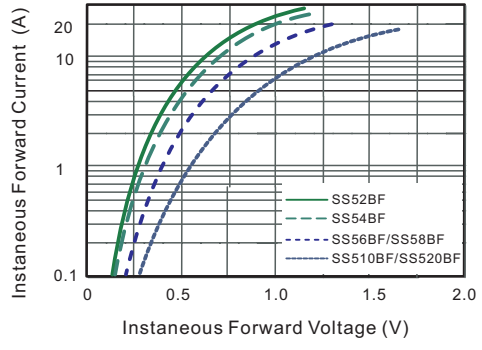


Fig.4 Typical Junction Capacitance

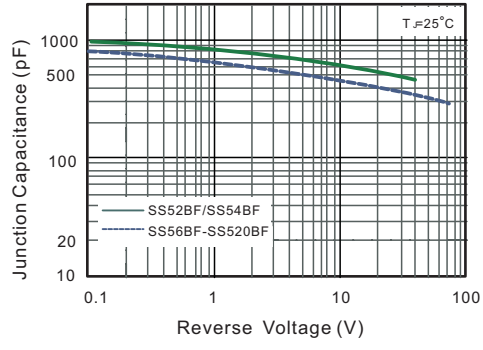


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

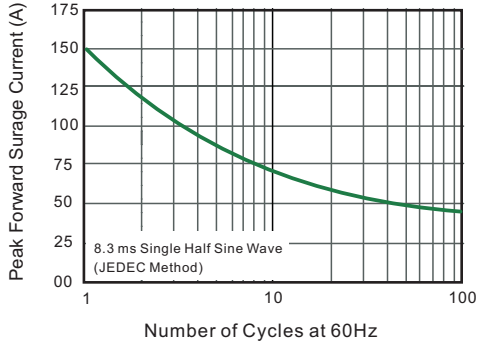


Fig.6- Typical Transient Thermal Impedance