SAMYANG ELECTRONICS

SS54BF

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 40 V
CURRENT: 5.0 A

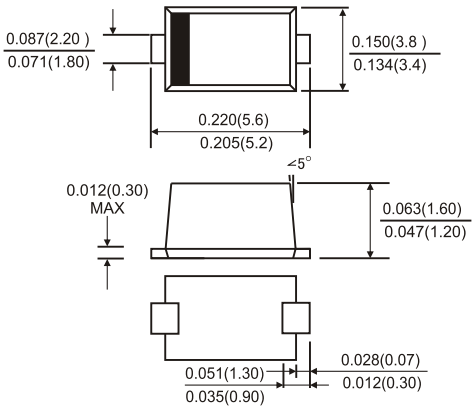
FEATURES

- Very low forward voltage:0.45V
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- *Case*: JEDEC SMB(DO-214AA) molded plastic body
- *Terminals*: solder plated ,solderable per MIL-STD-750,method 2026
- *Polarity*: color band denotes cathode end
- *Weight*: 0.003ounce,0.093 gram

SMBFL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		Symbols	SS 54BF	Volts
Maximum repetitive peak reverse voltage		V_{RRM}	40	Volts
Maximum RMS voltage		V_{RMS}	28	Volts
Maximum DC blocking voltage		V_{DC}	40	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)		$I_{(AV)}$	5.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	120	Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)		V_F	0.45	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A =25℃	I_R	0.5	mA
	T_A =100℃		50	
Typical thermal resistance (Note 2)		$R_{\theta JA}$ $R_{\theta JL}$	55.0 17.0	℃/W
Operating junction temperature range		T_J	-65 to+150	℃
Storage temperature range		T_{STG}	-65 to+150	℃

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

FIG.1-FORWARD CURRENT DERATING CURVE

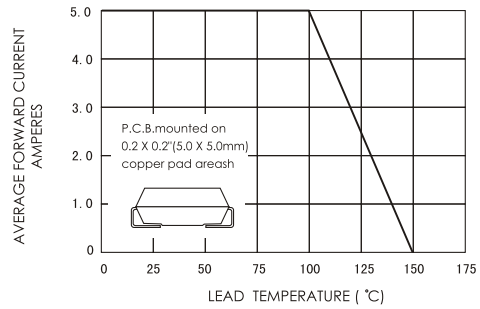


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

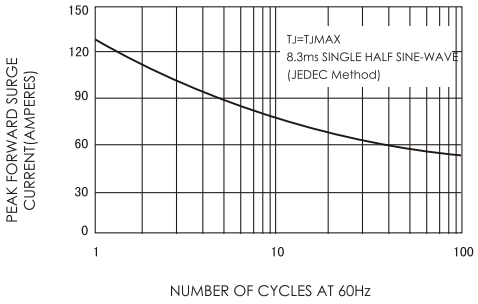


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

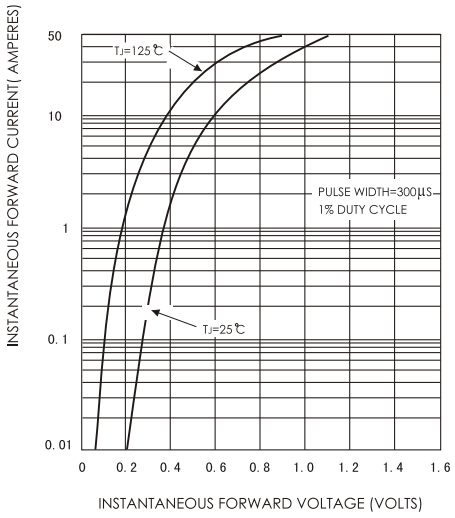


FIG.4-TYPICAL REVERSE CHARACTERISTICS

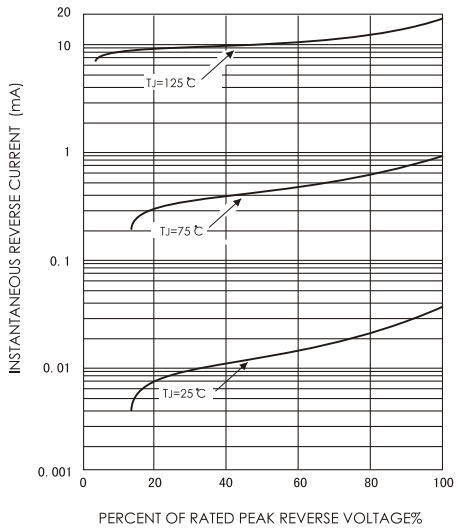


FIG.5-TYPICAL JUNCTION CAPACITANCE

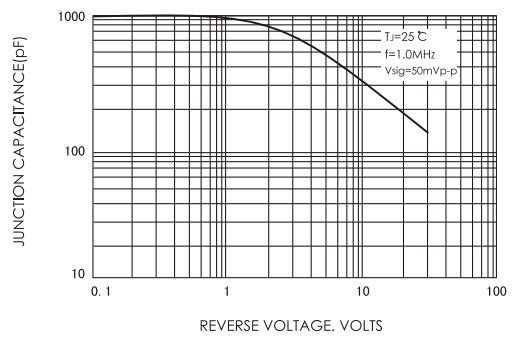


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

