SEMICONDUCTOR

SS52BT THRU SS520BT

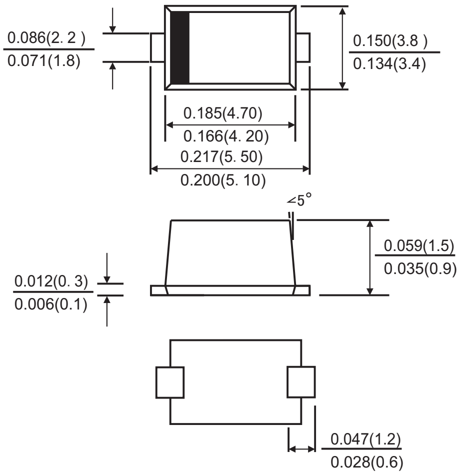
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts
Forward Current - 5.0Amperes

FEATURES

- 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 2011/65/EU

SMBF



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: SMBF molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

		Symbols	SS 52BT	SS 53BT	SS 54BT	SS 56BT	SS 510BT	SS 515BT	SS 520BT	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (see fig.1)		$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_L)		I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		V_F	0.55			0.70	0.85	0.90	0. 95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A=25°C	I_R	100				20			μA
	T_A=100°C		5				–			mA
	T_A=125°C		–				3			
Typical junction capacitance(Note 3)		C_J	500				400			pF
Typical thermal resistance (Note 2)		$R_{\theta JA}$ $R_{\theta JL}$	70. 0 25. 0							°C/W
Operating junction temperature range		T_J	-55 to+150							°C
Storage temperature range		T_{STG}	-55 to+150							°C

Notes: 1. Pulse test: 300 μs pulse width,1% duty cycle
2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas
3. Measured at 1MHz and reverse voltage of 4.0 volts

SS52BTTHRUSS520BT

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

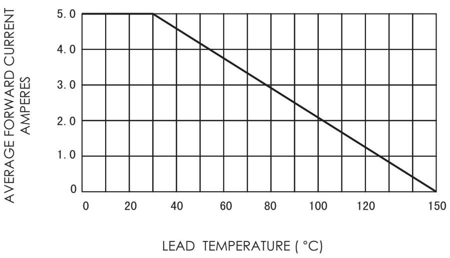


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

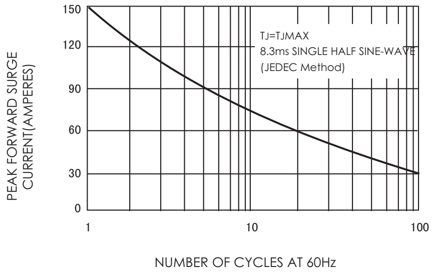


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

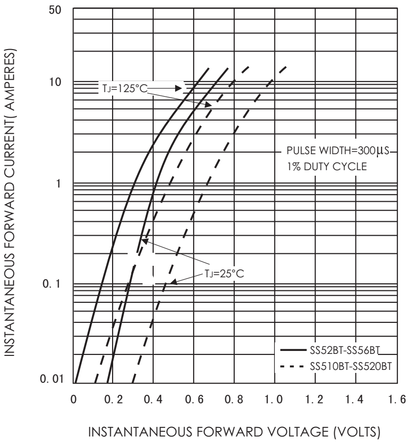


FIG.4-TYPICAL REVERSE CHARACTERISTICS

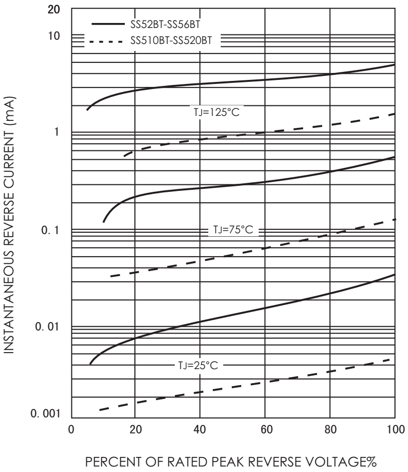


FIG.5-TYPICAL JUNCTION CAPACITANCE