SEMICONDUCTOR

SS525B

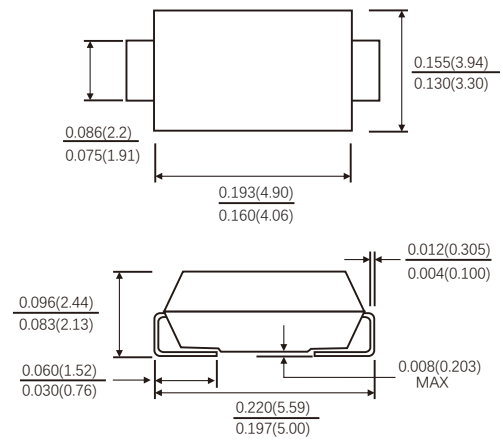
SCHOTTKY BARRIER RECTIFIER
Reverse Voltage - 250Volts
Forward Current - 5.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- 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
- ESD ratings:
  HBM ±8KV per AEC Q101-001(5 random Samples)
  Contact discharge: ±1.5kV & Air discharge: ±30kV
  per IEC 61000-4-2(5 random Samples)

Pb
RoHS
COMPLIANT

SMB(DO-214AA)



Dimensions in inches and (millimeters)

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

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%.)

Parameters		Symbols	SS525B				Units
Maximum repetitive peak reverse voltage		V_{RRM}	250				Volts
Maximum RMS voltage		V_{RMS}	175				Volts
Maximum DC blocking voltage		V_{DC}	250				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
Forward voltage at 5.0 A(Note 1)		V_F	TYP.	0.83	MAX.	0.91	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A=25°C	I_R	5.0				μA
	T_A=125°C		2.5				mA
Typical junction capacitance(Note 3)		C_J	91				pF
Typical thermal resistance (Note 2)		$R_{\theta JA}$ $R_{\theta JL}$	70 25				°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: 300μs pulse width,1% duty cycle
2.Thermal resistance from junction to lead
3.Measured at 1MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES SS525B

FIG.1-FORWARD CURRENT DERATING CURVE

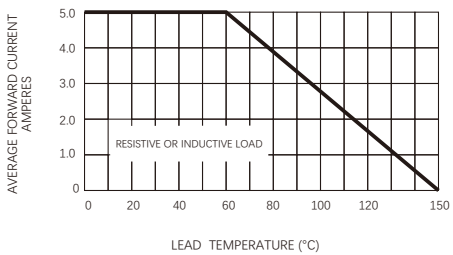


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

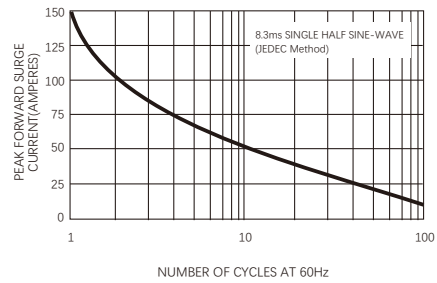


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

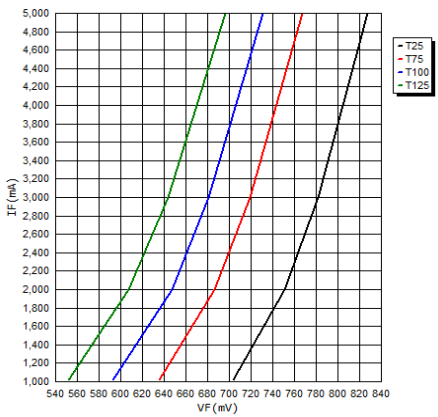


FIG.4-TYPICAL REVERSE CHARACTERISTICS

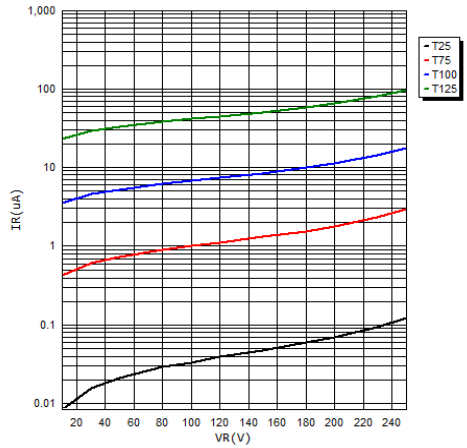
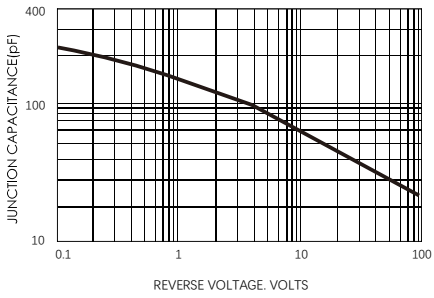


FIG.5-TYPICAL JUNCTION CAPACITANCE



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