

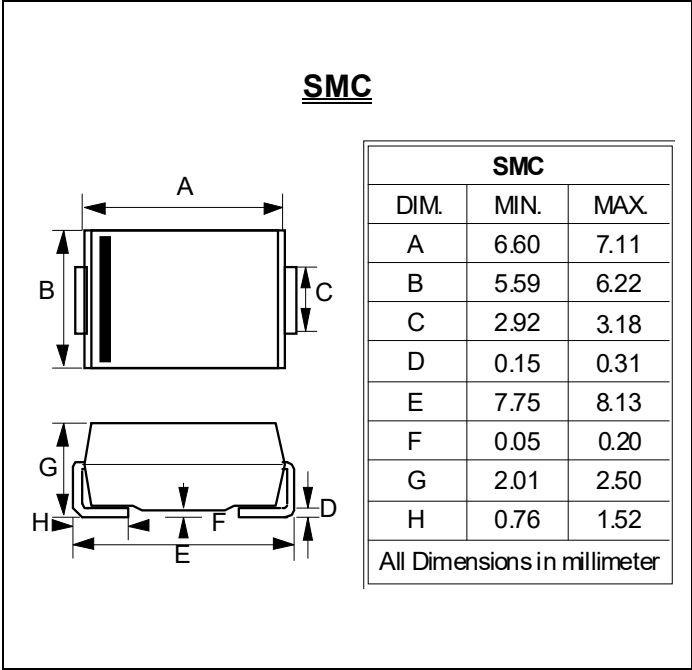
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS	REVERSE VOLTAGE – 20 to 40 Volts FORWARD CURRENT – 5.0 Amperes
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FEATURES

- For surface mounted applications
- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
- IEC 61000-4-2, level 4 (ESD), > 15KV (air)
- Qualification is according to AEC-Q101 Rev_C

MECHANICAL DATA

- Case: Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, "Halogen-free".
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	B520C	B530C	B540C	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	20	30	40	V
Maximum RMS Voltage	VRMS	14	21	28	V
Maximum DC Blocking Voltage	VDC	20	30	40	V
Maximum Average Forward Rectified Current @TL=85°C	I _{AV}	5.0			A
Peak Forward Surge 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	125			A
Maximum Forward Voltage at 5.0A DC	V _F	0.55			V
Maximum DC Reverse Current @Tj=25°C at Rated DC Blocking Voltage @Tj=100°C	I _R	0.15 20			mA
Typical Junction Capacitance (Note 1)	C _j	300			pF
Typical Thermal Resistance (Note 2, 4)	R _{θJL}	14			°C/W
Typical Thermal Resistance (Note 3, 4)	R _{θJA}	50			°C/W
Operating Junction Temperature Range	T _j	-55 to +125			°C
Storage Temperature Range	T _{STG}	-55 to +150			°C

Note: (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC...
 (2) Thermal Resistance Junction to Lead
 (3) Thermal Resistance Junction to Ambient
 (4) Unit mounted on glass epoxy substrate 1oz/ft² 35x35 mm copper pad.

REV.-8, Sep-2019, KSHC10

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**RATING AND CHARACTERISTIC CURVES
B520C thru B540C**



FIG. 1- FORWARD CURRENT DERATING CURVE

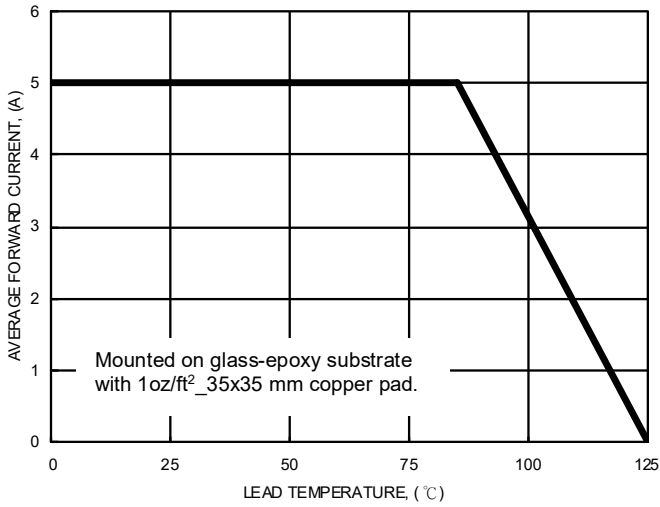


FIG. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

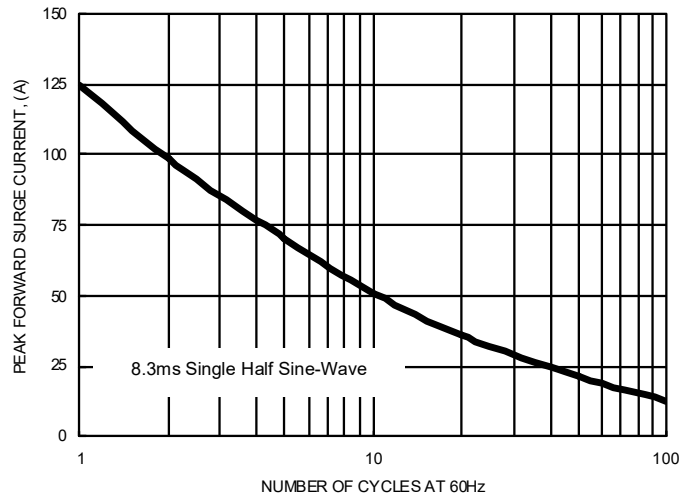


FIG. 3- TYPICAL JUNCTION CAPACITANCE

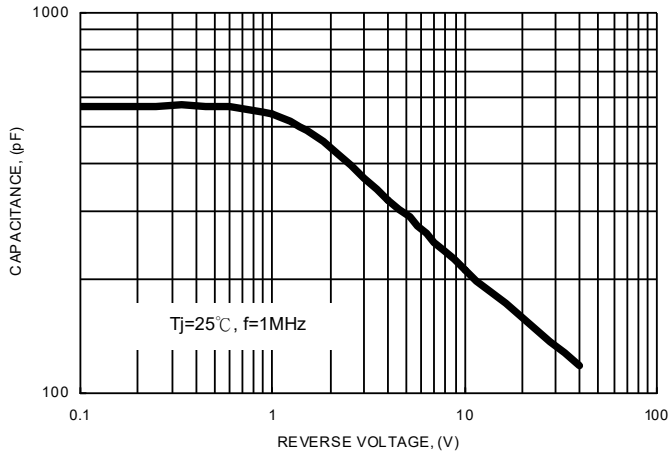


FIG. 4- TYPICAL FORWARD CHARACTERISTICS

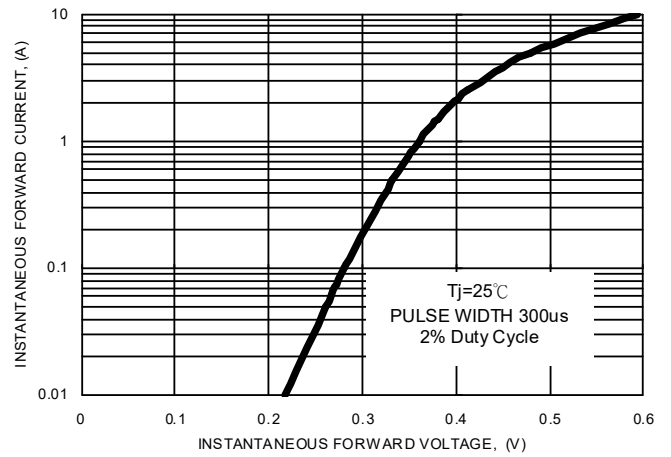


FIG. 5- TYPICAL REVERSE CHARACTERISTICS

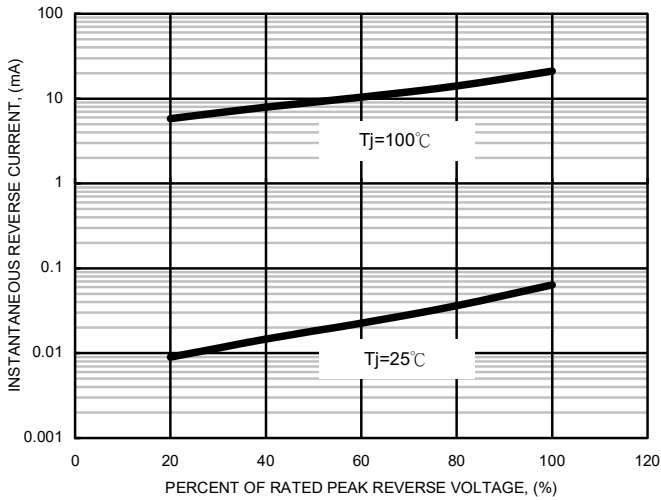
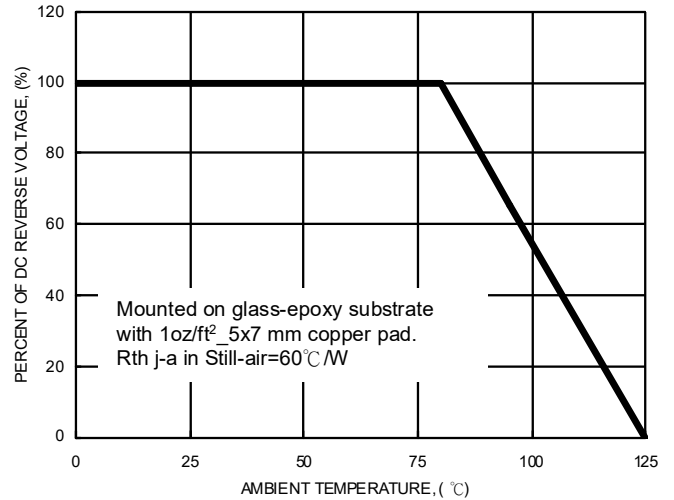


FIG. 6- DC REVERSE VOLTAGE DERATING CURVE



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