

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 --- 60 V
CURRENT: 5.0 A

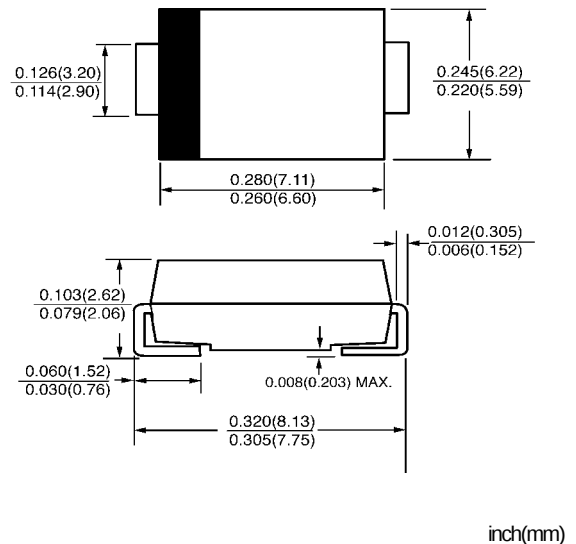
FEATURES

Plastic package has Underwriters Laborator
Flammability Classification 94V-0
For surface mounted applications
Low profile package
Built-in strain relief
Metal silicon junction, majority carrier conduction
High surge capability
High current capability, low forward voltage drop
Low power loss, high efficiency
For use in low voltage high frequency inverters, free
wheeling and polarity protection applications
Guardring for overvoltage protection
High temperature soldering guaranteed: 250°C/10
seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB, molded plastic over
passivated chip
Terminals: Solder Plated, solderable per MIL-STD-750,
Method 2026
Polarity: Color band denotes cathode end
Weight: 0.007 ounces, 0.21 gram

DO - 214AB(SMC)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		B520C	B530C	B540C	B550C	B560C	UNITS
Device marking code		B2C	B3C	B4C	B5C	B6C	
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V _{RWS}	14	21	28	35	42	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	V
Maximum average forw ord rectified current at T _L (SEE FIG.1) (NOTE 2)	I _(AV)	5.0					A
Peak forw ard surge current 8.3ms single half-sine-wave superimposed on rated load(JEDEC Method)	I _{FSM}	175.0					A
Maximum instantaneous forw ard voltage at 5.0A(NOTE.1)	V _F	0.55			0.70		V
Maximum DC reverse current @T _A =25°C at rated DC blockjing voltage(NOTE1) @T _A =100°C	I _R	0.5					mA
		20					
Typical thermal resitance (NOTE2)	R _{θJA}	50.0					°C/W
	R _{θJL}	10.0					
Operating junction and storage temperature range	T _{STG}	-65--- +150					°C
Storage temperature range	T _J	-65--- +150			-65--- +150		°C

NOTE: 1. Pulse test: 300 μs pulse width, 1% duty cycle

2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm²) copper pad areas

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FIG.1 – FORWARD DERATING CURVE

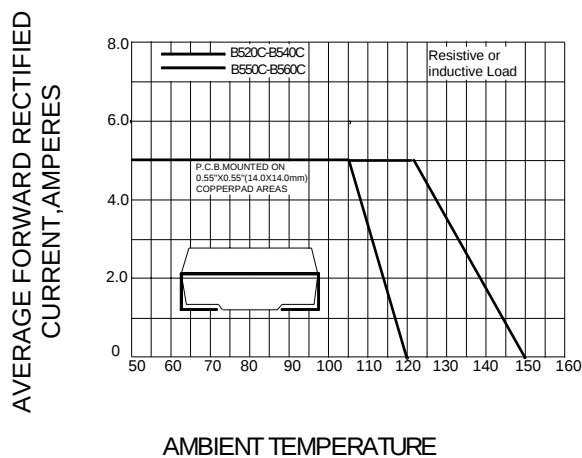


FIG.2-- PEAK FORWARD SURGE CURRENT

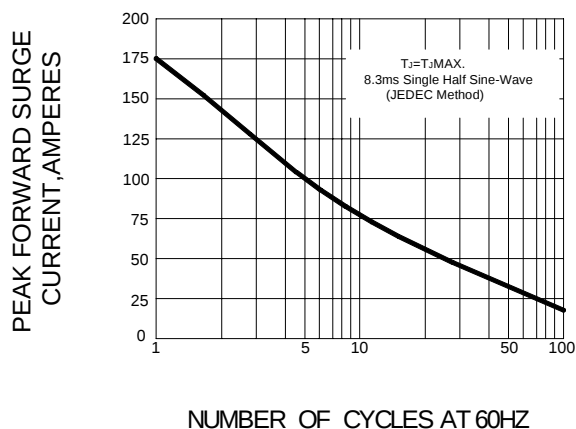


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

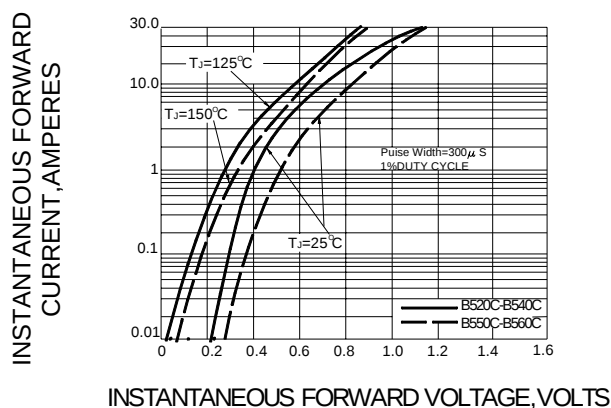


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

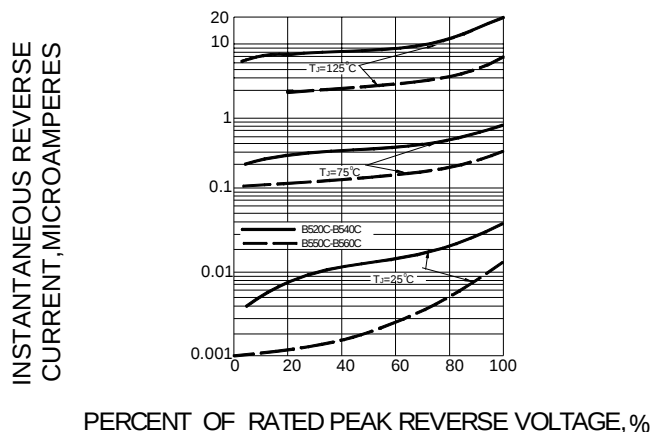


FIG.5-TYPICAL JUNCTION CAPACITANCE

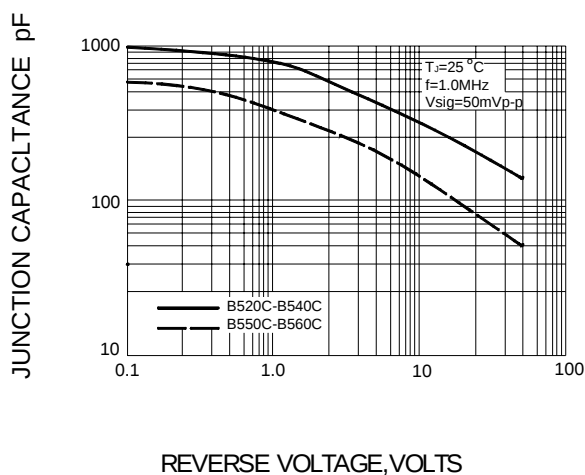


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

