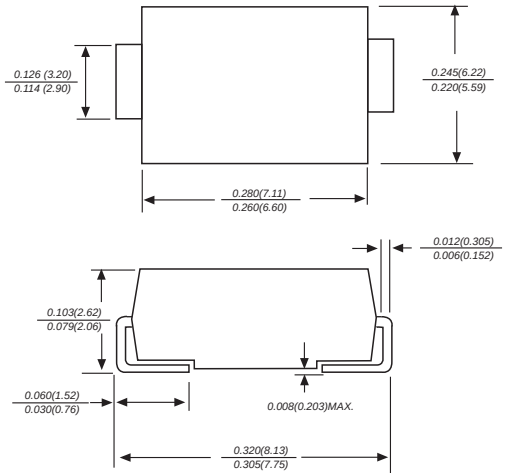
B520C THRU B5200C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

DO-214AB/SMC



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief,ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250℃/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.007 ounce, 0.25grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

YFW Catalog Number	SYMBOLS	B520C	B530C	B540C	B550C	B560C	B580C	B5A0C	B5150C	B5200C	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	VOLTS
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	150	VOLTS
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	VOLTS
Maximum average forward rectified current at T_L(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}	150.0									Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.55			0.70		0.85			0.95	Volts
Maximum DC reverse current T_A=25℃	I_R	0.5							0.2		mA
at rated DC blocking voltage T_A=100℃		20					10		2.0		
Typical junction capacitance (NOTE 1)	C_J	200									pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0									°C/W
Operating junction temperature range	T_J,	-50 to +125					-50 to +150				°C
Storage temperature range	T_{STG}	-50 to +150									°C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

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RATINGS AND CHARACTERISTIC CURVES B520C THRU B5200C

FIG. 1- FORWARD CURRENT DERATING CURVE

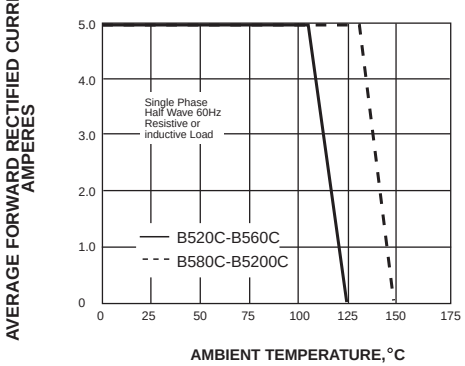


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

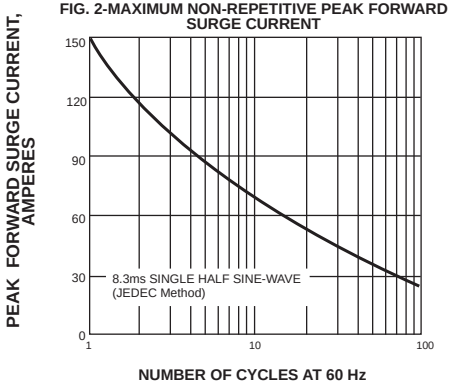


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

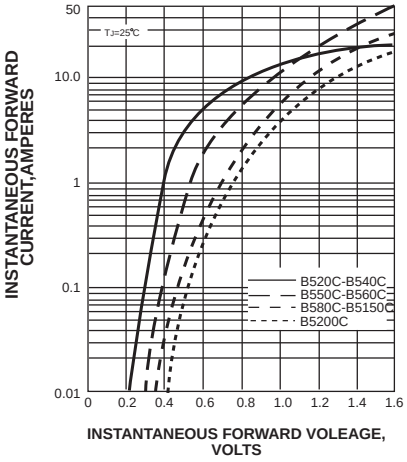


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

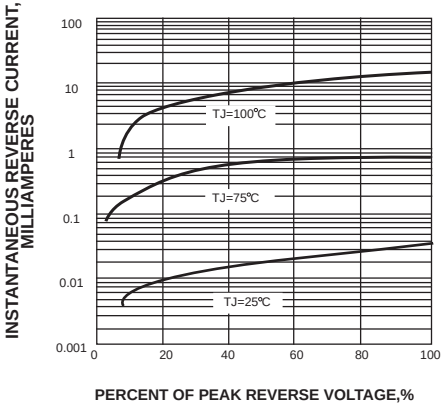


FIG. 5-TYPICAL JUNCTION CAPACITANCE

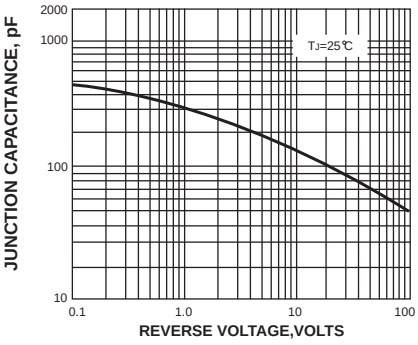
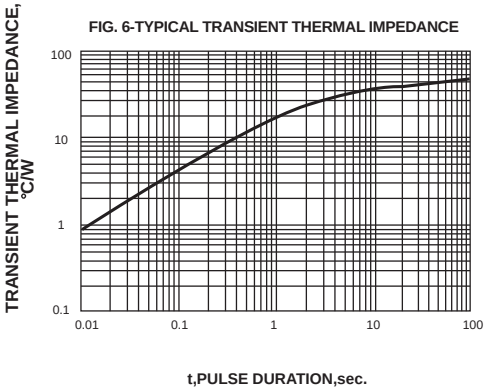


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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