

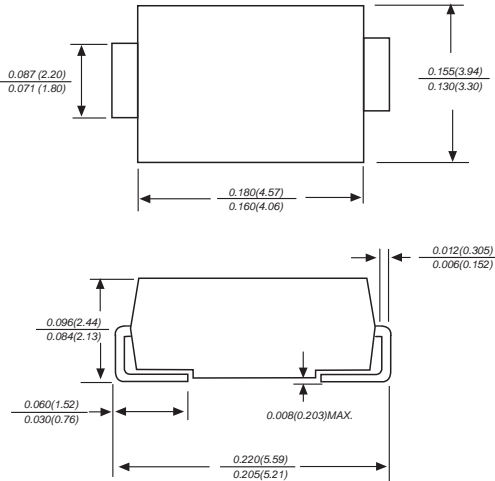


B520B THRU B5200B

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

DO-214AA/SMB



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°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight : 0.003 ounce, 0.093 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

MDD Catalog Number	SYMBOLS	B520B	B530B	B540B	B550B	B560B	B580B	B5A0B	B5150B	B5200B	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 $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.5						0.2		mA		
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

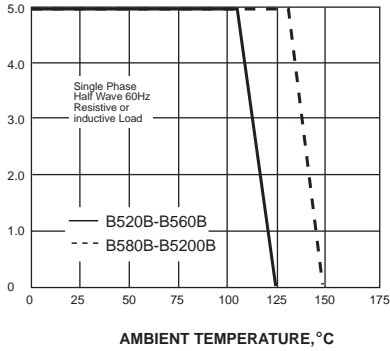


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RATINGS AND CHARACTERISTIC CURVES B520B THRU B5200B

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

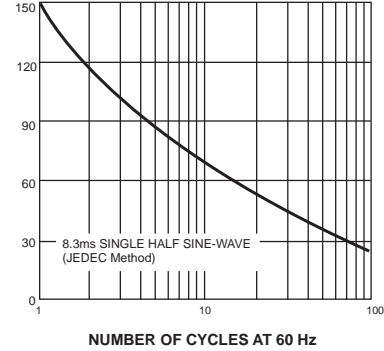


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

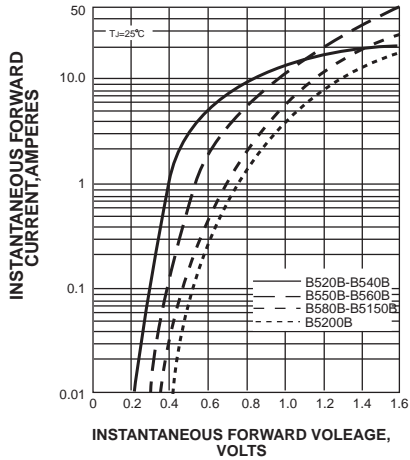


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

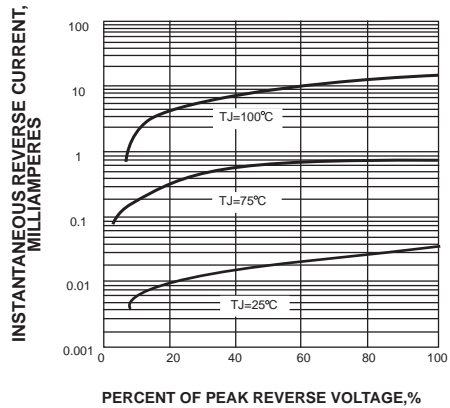
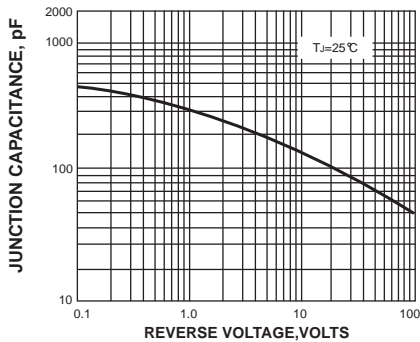
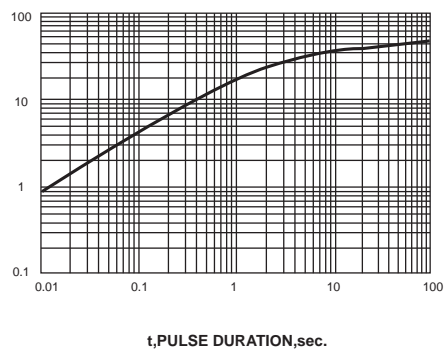


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考!)

