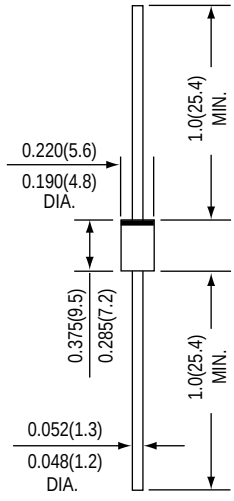
SB5150 AND SB5200
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 - 200 Volts *Forward Current - 5.0 Amperes*

DO-201AD



*Dimensions in inches and (millimeters)

FEATURES

* Guarding for overvoltage protection
* Very small conduction losses
* Low forward voltage drop
* AEC-Q101 qualified

MECHANICAL DATA

Case : DO-201AD
Case Material : Molded Plastic UL Flammability Classification Rating 94V-0
Terminals : Lead free plating (Tin Finish) Solderable per MIL-STD-202, Method 208
Polarity : Cathode Band
Weight : 1.071 grams (approximate)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.	*SYMBOLS*	***SB5150***	***SB5200***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	150	200	Volts
Maximum RMS voltage	V_{RMS}	105	140	Volts
Maximum DC blocking voltage	V_{DC}	150	200	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	$I_{(AV)}$	5.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100		Amps
Maximum instantaneous forward voltage at 5.0 A @ 25℃	V_F	0.87	0.90	Volts
Maximum instantaneous reverse current at rated DC blocking voltage T_A = 25℃	I_R	50		uA
Maximum instantaneous reverse current at rated DC blocking voltage T_A = 100℃	I_R	500		uA
Typical junction capacitance (NOTE)	C_J	180	120	pF
Typical thermal resistance	$R_{\theta JC}$	30		℃ / W
Operating junction temperature range	T_J	-55 to +150		℃
Storage temperature range	T_{STG}	-55 to +150		℃

NOTES : Measured at 1.0MHz and applied reverse voltage of 4.0V DC

RATINGS AND CHARACTERISTIC CURVES SB5150 AND SB5200

FIG.1 - FORWARD CURRENT DERATING CURVE

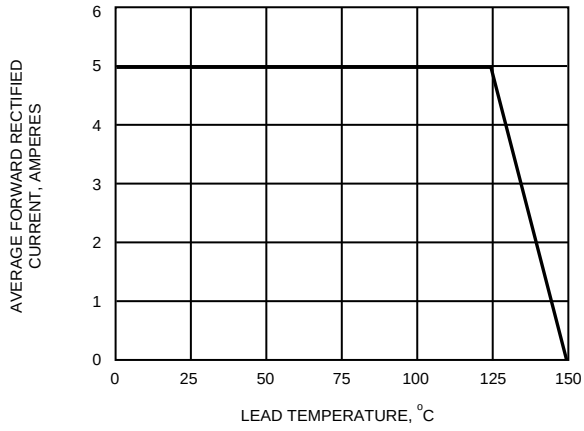


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

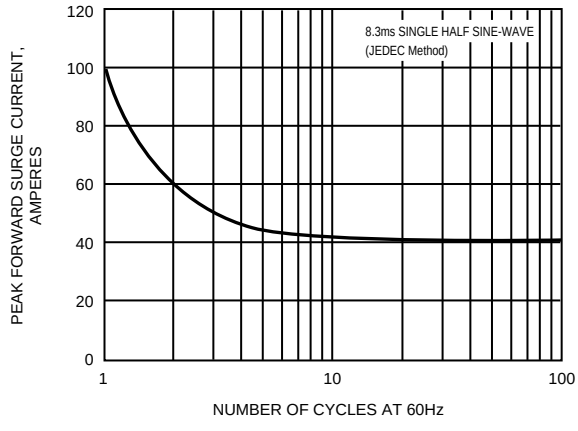


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

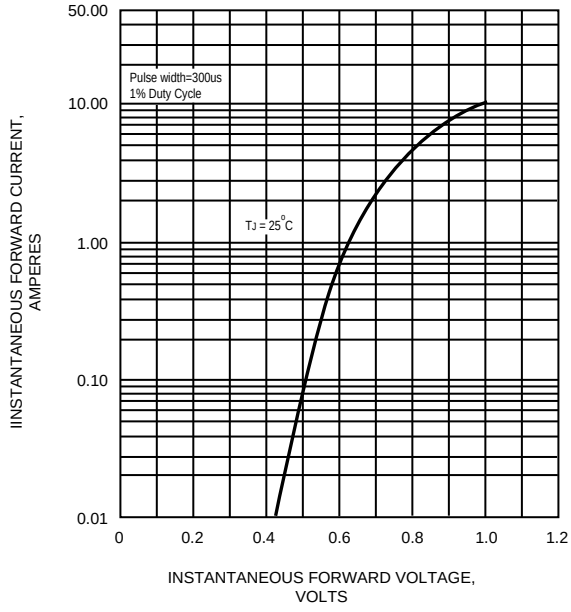


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

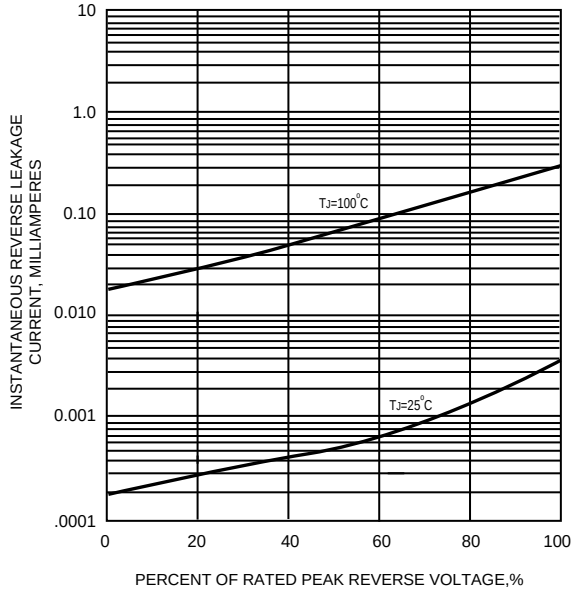


FIG.5 - TYPICAL JUNCTION CAPACITANCE