

### SCHOTTKY BARRIER RECTIFIER

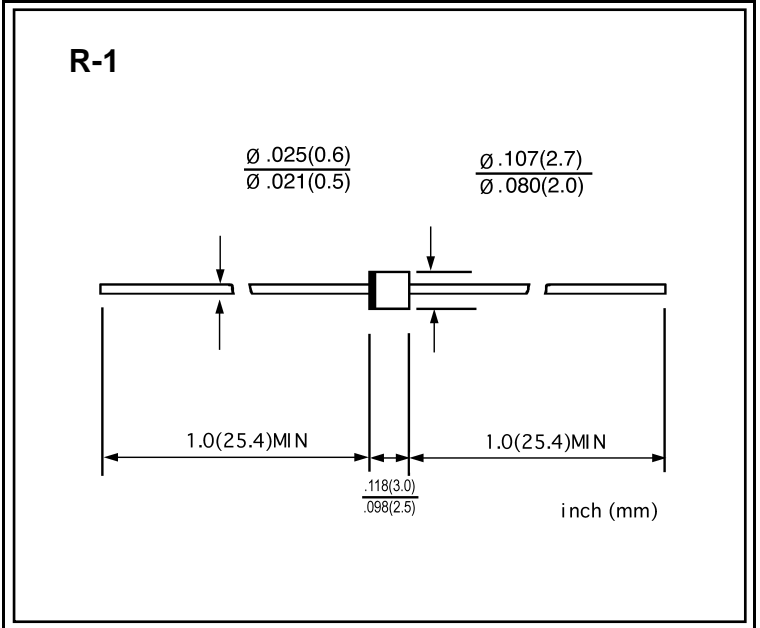
VOLTAGE RANGE: 20 --- 100 V  
CURRENT: 1.0 A

#### FEATURES

- Low switching noise
- Low forward voltage drop
- High current capability
- High switching capability
- High surge capability
- High reliability

#### MECHANICAL DATA

- Case: JEDEC R-1, molded plastic
- Epoxy: device has UL flammability classification 94V-0
- Lead: MIL-STD 202E method 208c guaranteed
- Mounting position: Any
- Weight: 0.007 ounces, 0.20 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

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

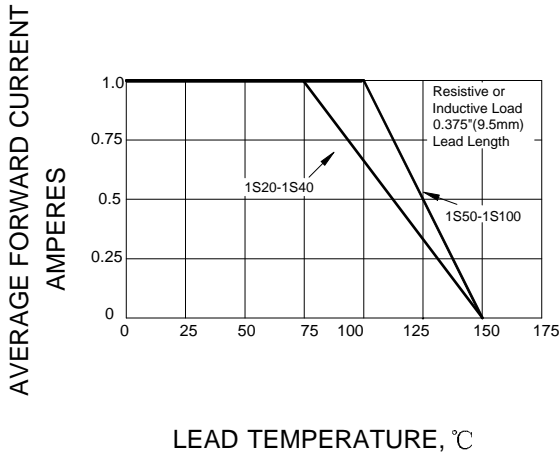
		1S20	1S30	1S40	1S50	1S60	1S80	1S100	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum average forward rectified current 9.5mm lead length, (see fig.1)	$I_{F(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	20.0							A
Maximum instantaneous forward voltage @ 1.0A	$V_F$	0.55			0.70		0.85		V
Maximum reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=100$	$I_R$	1.0			10.0		mA		
Typical junction capacitance (Note1)	$C_J$	110							pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50							/W
Operating junction temperature range	$T_J$	- 55 --- + 150							
Storage temperature range	$T_{STG}$	- 55 --- + 150							

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

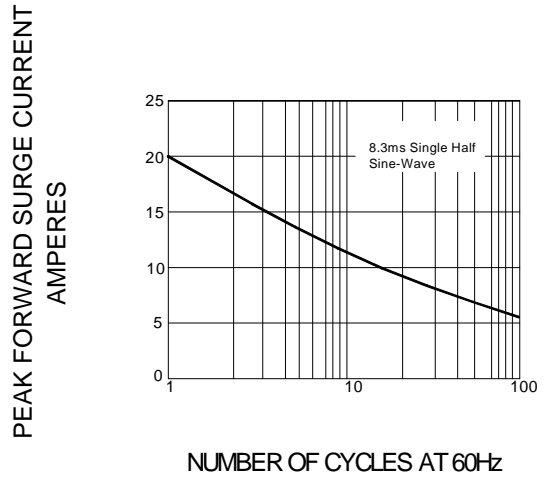
2. Thermal resistance junction to ambient

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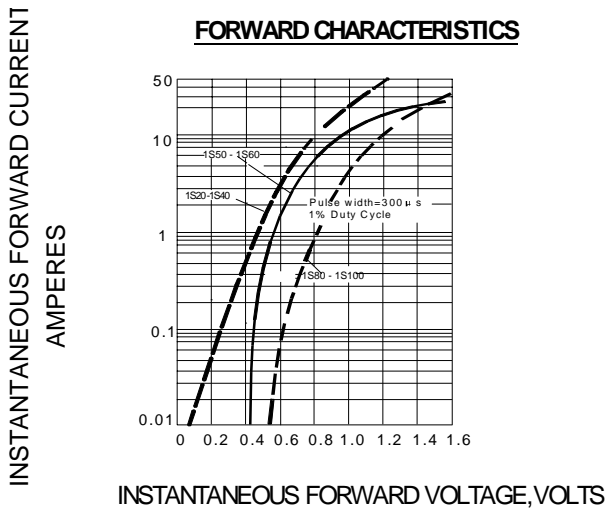
**FIG.1 – FORWARD CURRENT DERATING CURVE**



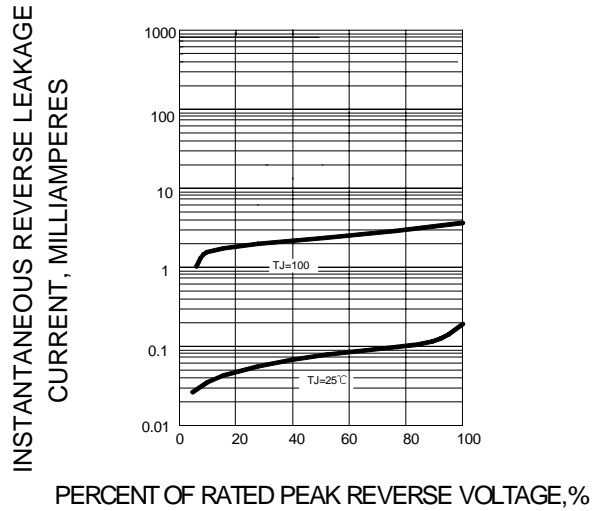
**FIG.2 –MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



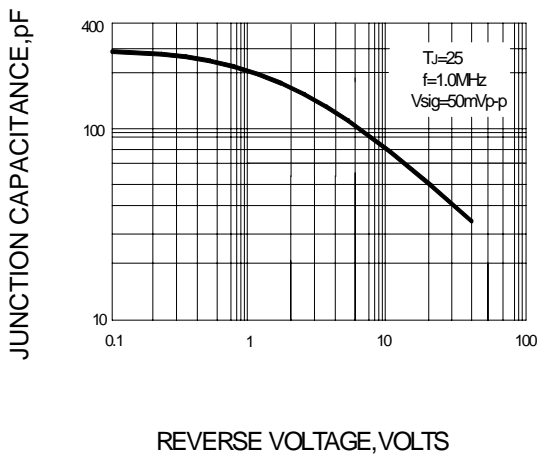
**FIG.3 –TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.4–TYPICAL REVERSE CHARACTERISTICS**



**FIG.5–TYPICAL JUNCTION CAPACITANCE**



**FIG.6–TYPICAL TRANSIENT THERMAL IMPEDANCE**

