

SCHOTTKY BARRIER RECTIFIERS

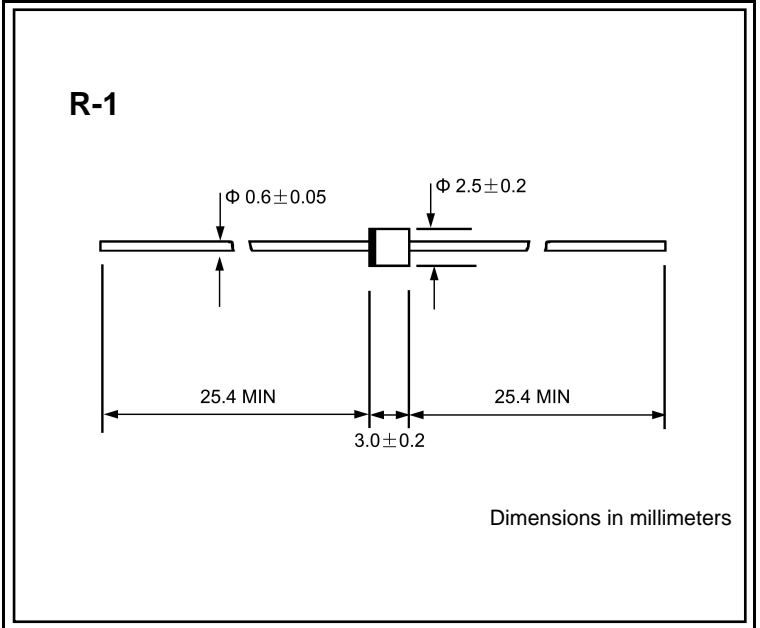
VOLTAGE RANGE: 20 --- 100 V
CURRENT: 1.0 A

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}	35							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	0.5 10							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 --- + 125				-55 --- + 150				
Storage temperature range	T_{STG}	- 55 --- + 150								

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

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2. Thermal resistance junction to ambient

FIG.1 – FORWARD CURRENT DERATING CURVE

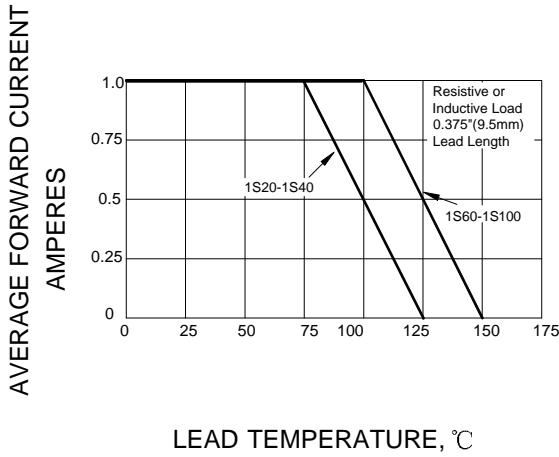


FIG.2 –MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

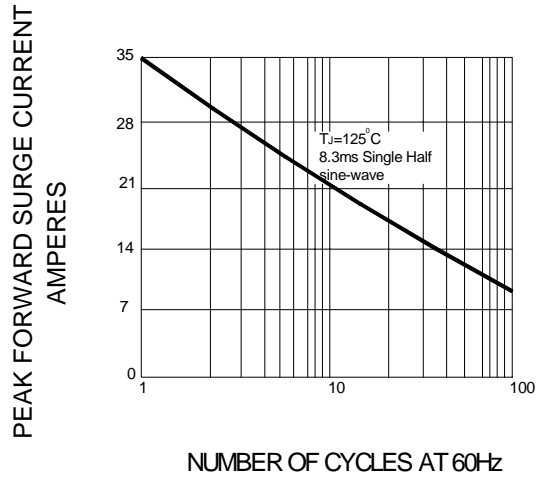


FIG.3 –TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

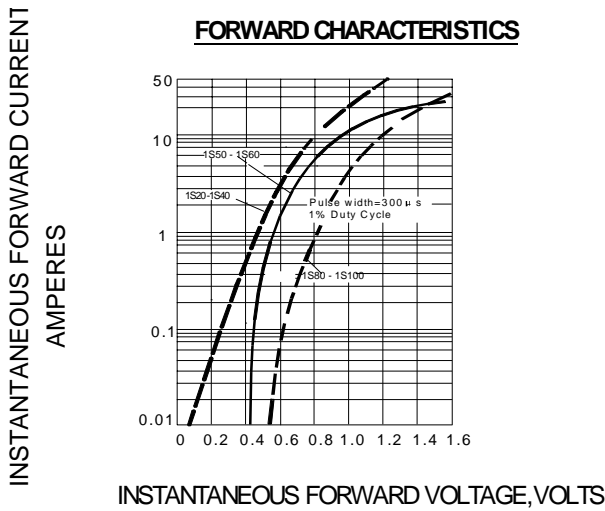


FIG.4 –TYPICAL REVERSE CHARACTERISTICS

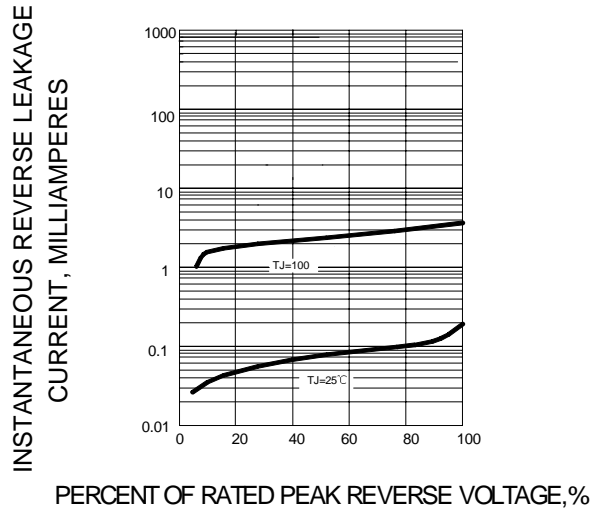


FIG.5 –TYPICAL JUNCTION CAPACITANCE

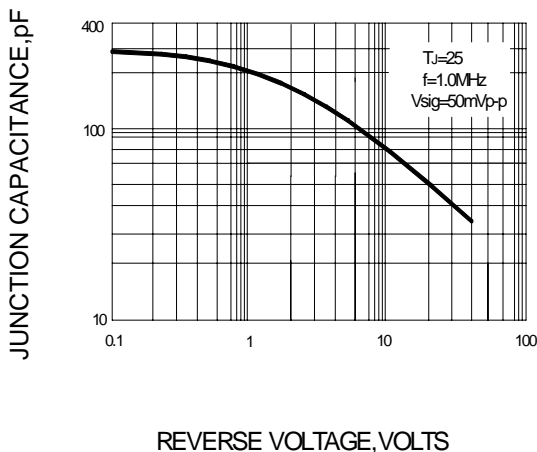


FIG.6 –TYPICAL TRANSIENT THERMAL IMPEDANCE

