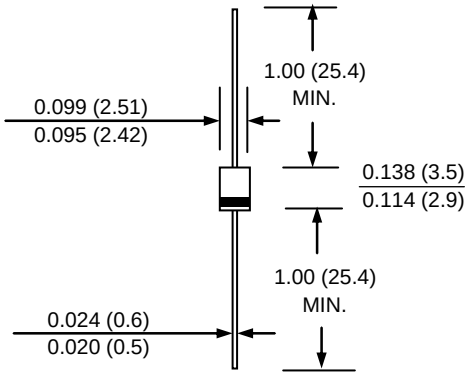
1N17 - 1N19

SCHOTTKY BARRIER RECTIFIER DIODES

VOLTAGE RANGE: 20 - 40V
CURRENT: 1.0 A

R-1



Dimensions in inches and (millimeters)

Features

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop,low switching losses
- High surge capability
- Foruse inlowvoltage,high frequencyinvertersfree
- wheeling,and polarity protection applications
- The plastic material carries U/L recognition 94V-0

Mechanical Data

- Case:JEDEC R-1 molded plastic
- Terminals: Axial lead ,solderable per
- MIL- STD-202 Method 208
- Polarity: Color band denotes cathode
- Weight:0.007 ounces,0.20 grams

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	1N17	1N18	1N19	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0			A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=70℃	I_{FSM}	25.0			A
Maximum instantaneous forw ard voltage @ 1.0A (Note 1) @ 3.0A	V_F	0.45 0.75	0.55 0.875	0.60 0.90	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 (Note2)	C_J	110			pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	50			℃/W
Operating junction temperature range	T_J	- 55 ---- + 125			℃
Storage temperature range	T_{STG}	- 55 ---- + 150			℃

NOTE: 1. Pulse test : 300μs pulse width,1% duty cycle.
2. Measured at 1.0MH_Z and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient

FIG.1 -- FORWARD DERATING CURVE

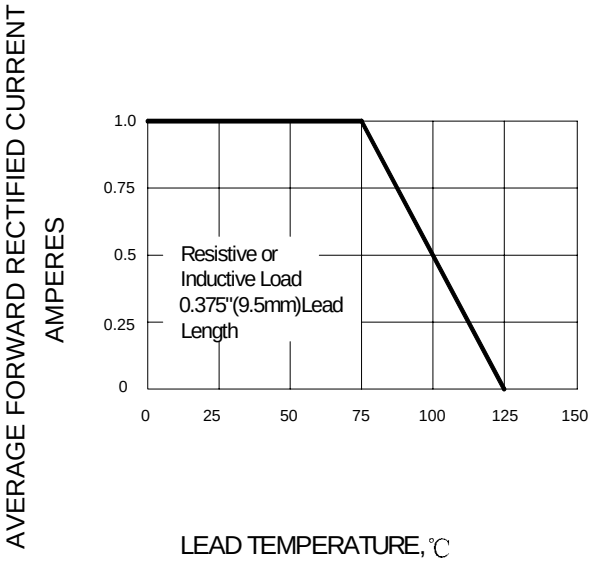


FIG.2 -- PEAK FORWARD SURGE CURRENT

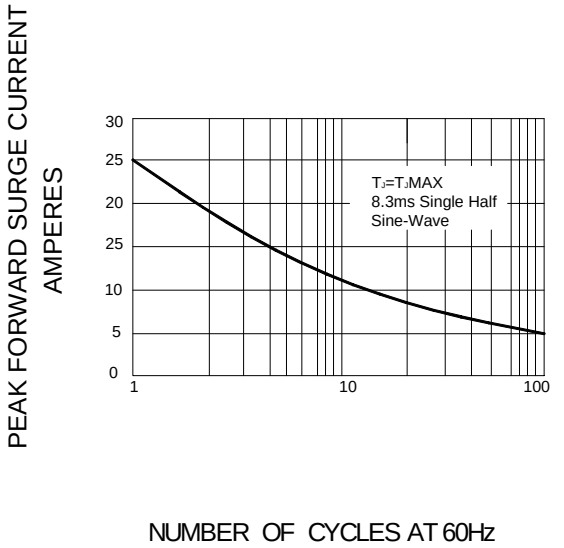


FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

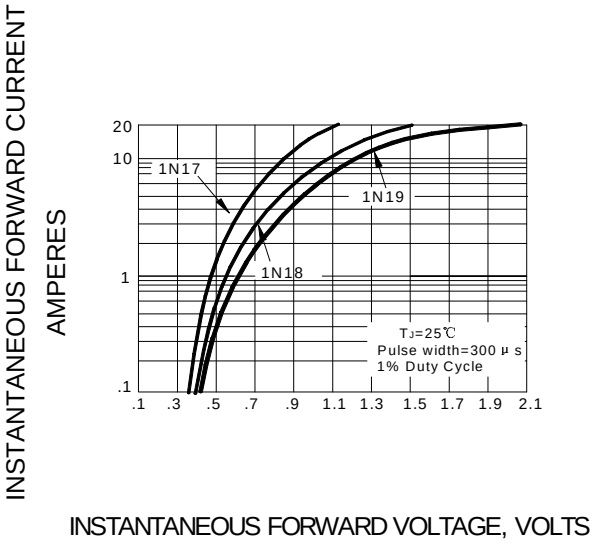


FIG.4 -- TYPICAL JUNCTION CAPACITANCE