1N17 thru 1N19

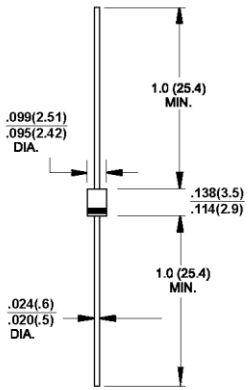
GOOD-ARK

1.0 Amp. Schottky Barrier Rectifiers
Voltage Range 20 to 40 Volts Forward Current 1.0 Ampere

Features

- Low power loss, high efficiency
- Low leakage
- Low forward voltage
- High current capability
- High speed switching
- High surge capabitity
- High reliability

R-1



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position: Any
- Weight: 0.007 ounce, 0.20 gram

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 current by 20%.

Parameter	Symbols	1N17	1N18	1N19	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_L=90°C	$I_{(AV)}$	1.0			Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	20.0			Amps
Maximum instantaneous forward voltage at 1.0A DC	V_F	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1A DC	V_F	0.750	0.875	0.900	Volts
Maximum average reverse current at peak reverse voltage T_A = 25°C T_A = 100°C	I_R	1.0 10.0			mA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	80			°C/W
Typical junction capacitance (Note 2)	C_J	110			pF
Storage and operating temperature range	T_J, T_{STG}	-65 to +150			°C

Notes: 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

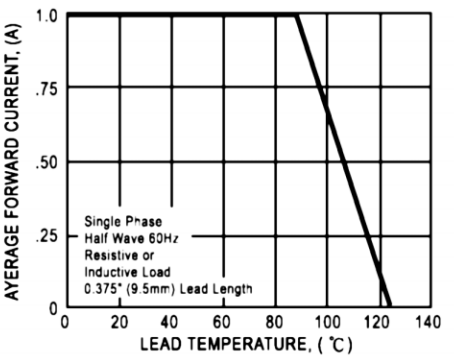


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

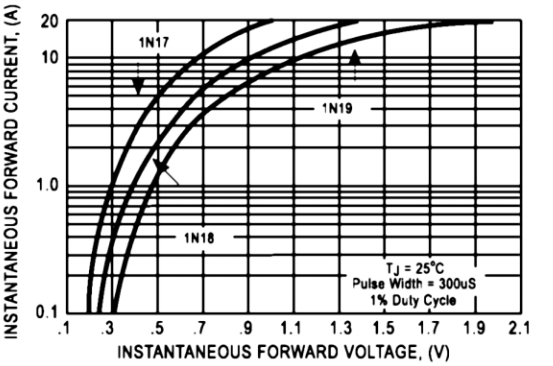


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

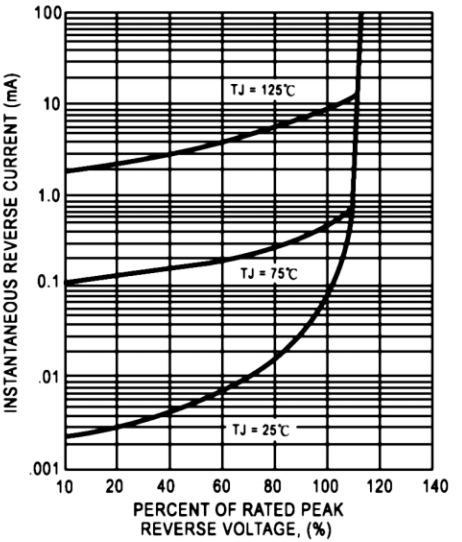


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

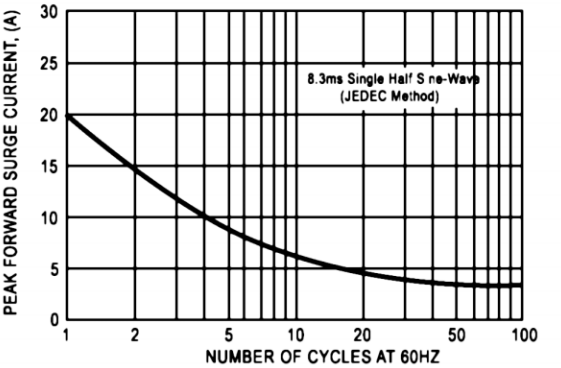


FIG. 5 - TYPICAL JUNCTION CAPACITANCE