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1N645 THRU 1N649

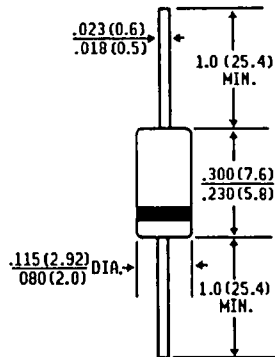
MINIATURE GLASS PASSIVATED JUNCTION RECTIFIER

Voltage - 225 to 600 Volts Current- 400 Milliamperes

FEATURES

- ◆ High temperature metallurgically bonded constructed rectifiers
- ◆ 0.4 Ampere operation at $T_A=25^\circ\text{C}$ with no thermal runaway
- ◆ Hermetically sealed package
- ◆ Glass passivated cavity-free junction
- ◆ Ideally suited for miniaturized equipment

DO-204MB



Dimension in inches
and
(millimeters)

MECHANICAL DATA

Case: JEDEC DO-204MB One piece glass sleeve

Terminals: Plated Axial leads

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: .02 ounce, .56 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%.

	SYMBOLS	1N645	1N646	1N647	1N648	1N649	UNITS
*Maximum Recurrent Peak Reverse Voltage	V_{RRM}	225	300	400	500	600	Volts
Maximum RMS Voltage	V_{RMS}	156	210	280	350	420	Volts
Maximum DC Blocking Voltage	V_{DC}	225	300	400	500	600	Volts
*Minimum Reverse Breakdown Voltage at $100\mu\text{A}$ $T_A=100^\circ\text{C}$	V_{BR}	275	360	480	600	720	Volts
*Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths at $T_A=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	I_{AV}	400.0 150.0					Mili-Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	15.0					Amps
*Maximum Instantaneous Forward Voltage at 400mA	V_F	1.0					Volts
*Maximum DC Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	200.0 15.0 20.0 25.0					nA μA
Typical Junction Capacitance (NOTE 1)	C_J	15.0					pf
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	81.0					$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +175					$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +200					$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 Vdc.

3. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Lengths, P.C. Board Mounted.

* JEDEC Registered Values

RATING AND CHARACTERISTIC CURVES 1N645 THRU 1N649

FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

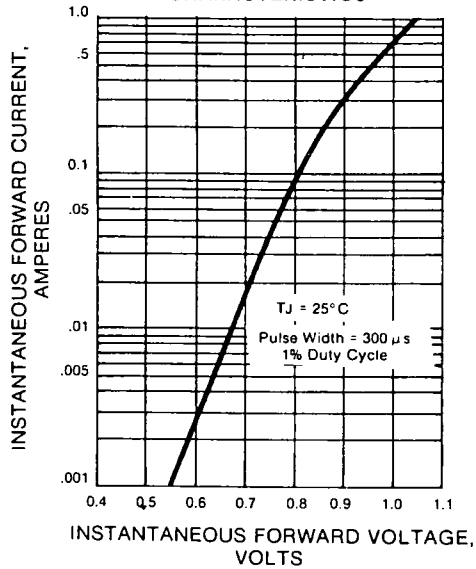


FIG. 1 — FORWARD CURRENT DERATING CURVE

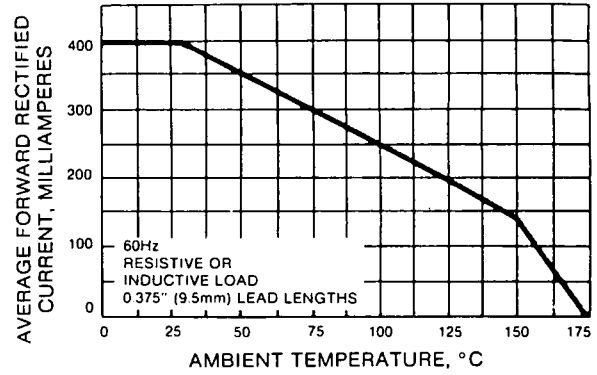


FIG. 2 — MAXIMUM NON-REPTITIVE PEAK FORWARD SURGE CURRENT

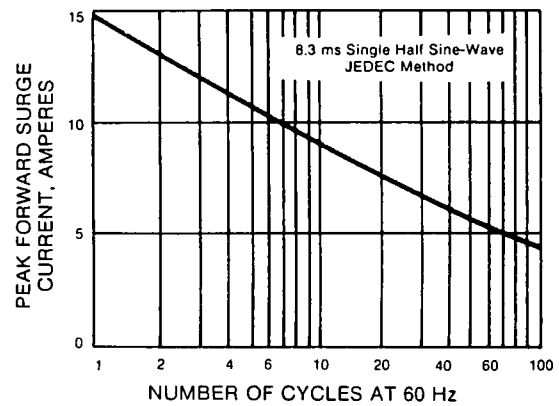


FIG. 5 — TYPICAL REVERSE LEAKAGE CHARACTERISTICS

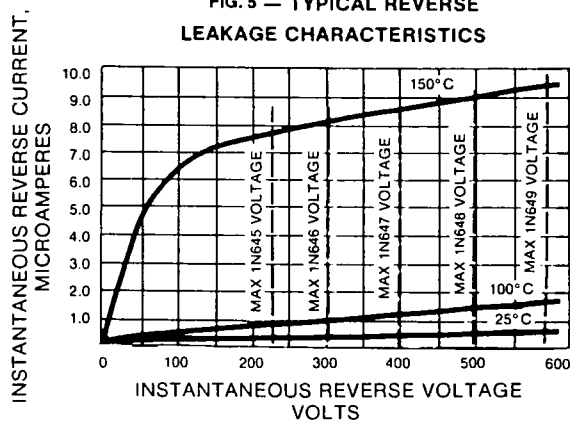


FIG. 4 — TYPICAL JUNCTION CAPACITANCE

