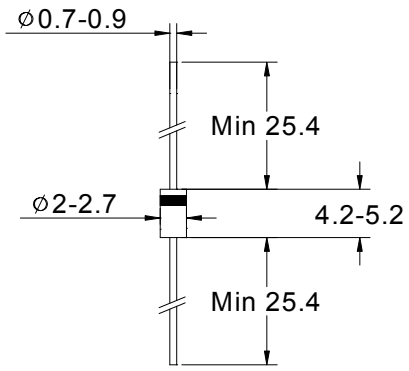
1N4001G THRU 1N4007G, BY133G-HAF

GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage – 50 to 1300 Volts
Forward Current – 1.0 Ampere

DO-41



Dimensions in mm

Features

- Low forward voltage drop
- High Surge current capability
- Halogen and Antimony Free(HAF), RoHS compliant

Mechanical Data

- **Case:** Molded plastic, DO-41
- **Lead:** Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

Absolute Maximum Ratings and Characteristics

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	1N 4001G	1N 4002G	1N 4003G	1N 4004G	1N 4005G	1N 4006G	1N 4007G	BY 133G	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	1300	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	910	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	1300	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at T_A = 75 °C	$I_{(AV)}$	1								A
Peak Forward Surge Current, 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30								A
Maximum forward Voltage at 1A DC and 25 °C	V_F	1.1								V
Maximum Reverse Current T_A = 25 °C at Rated DC Blocking Voltage T_A = 100 °C	I_R	5 50								μA
Typical Junction Capacitance [1]	C_J	15								pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	50								°C/W
Typical Thermal Resistance [2]	$R_{\theta JL}$	25								°C/W
Operating and Storage Temperature range	T_J, T_{stg}	-55 to +150								°C

[1] Measured at 1 MHz and applied reverse voltage of 4 volts.

[2] Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length P.C.B. mounted.

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

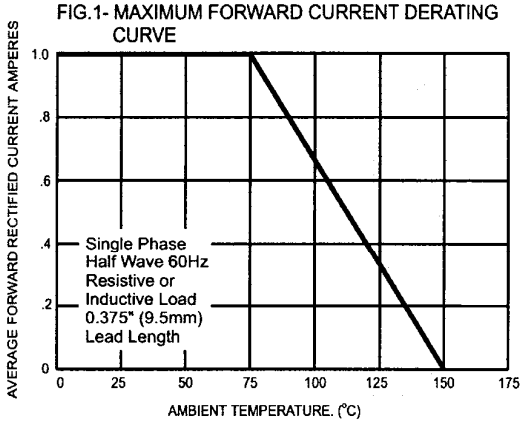


FIG.2- TYPICAL FORWARD CHARACTERISTICS

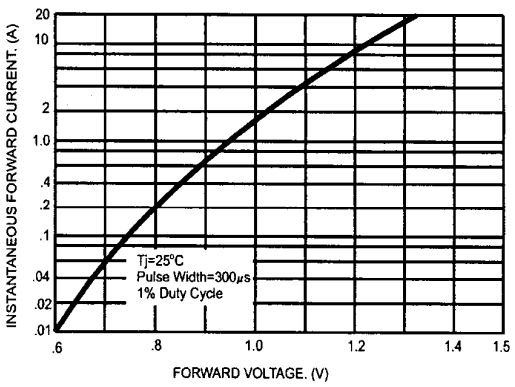


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

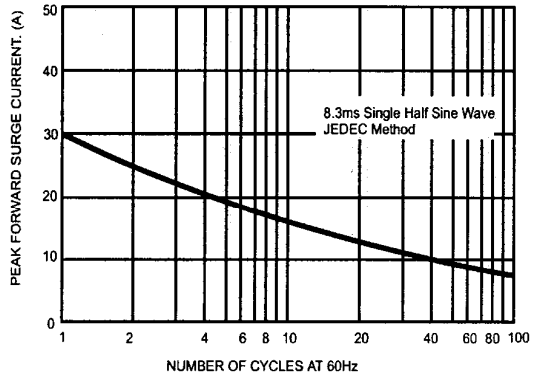


FIG.4- TYPICAL JUNCTION CAPACITANCE

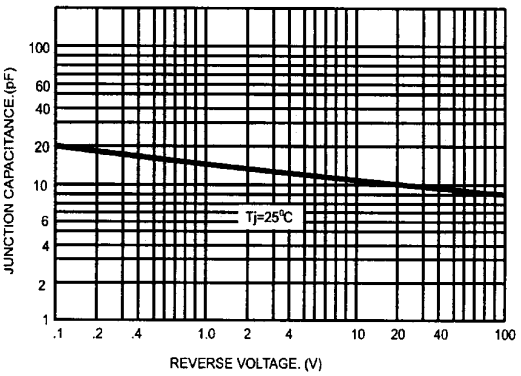


FIG.5- TYPICAL REVERSE CHARACTERISTICS