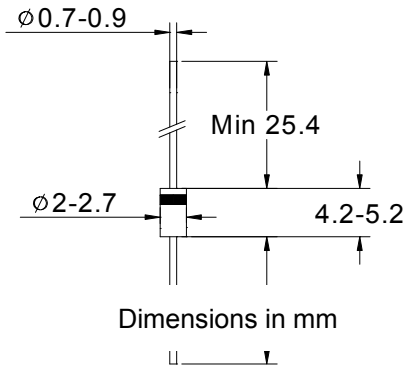
BY133G

General Purpose Plastic Silicon Rectifier

Reverse Voltage – 1300 V
Forward Current – 1 A

DO-41



Dimensions in mm

Features

- Low forward voltage drop
- High surge current capability

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	Value	Unit
	Marking	BY133G	-
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1300	V
Maximum RMS Voltage	V_{RMS}	910	V
Maximum DC Blocking Voltage	V_{DC}	1300	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at T_A = 75 °C	$I_{F(AV)}$	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	V_F	1.1	V
Maximum Reverse Current T_A = 25℃ at Rated DC Blocking Voltage T_A = 100℃	I_R	5 50	μA
Typical Junction Capacitance [1]	C_J	15	pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	50	℃/W
Operating and Storage Temperature Range	T_J,T_{stg}	-55 to +150	℃

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

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

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Electrical characteristic curves

FIG. 1- FORWARD CURRENT DERATING CURVE

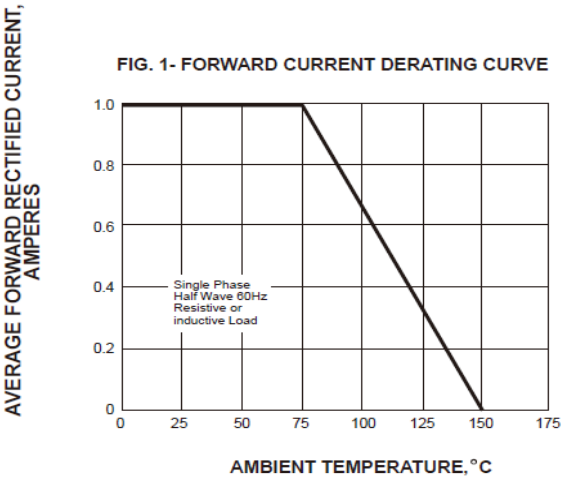


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

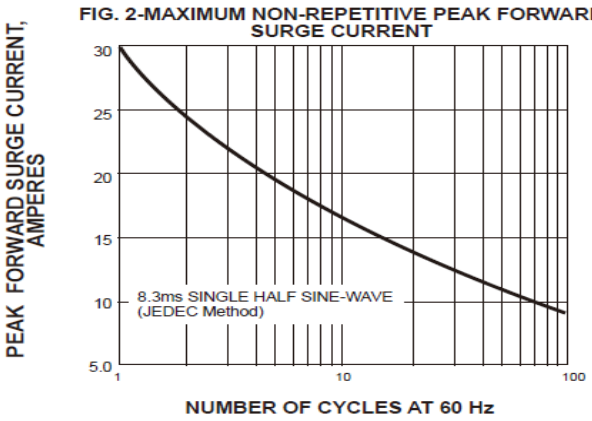


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

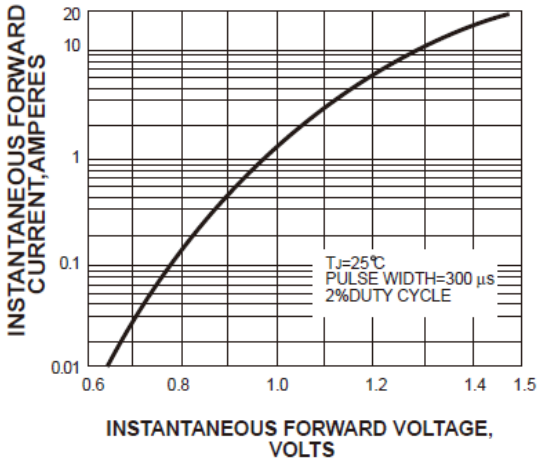


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

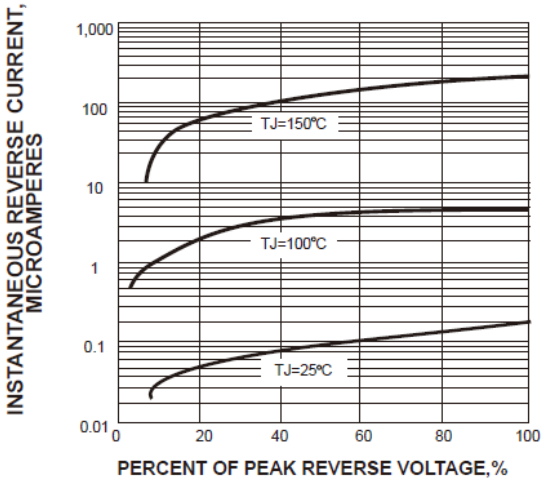


FIG. 5-TYPICAL JUNCTION CAPACITANCE

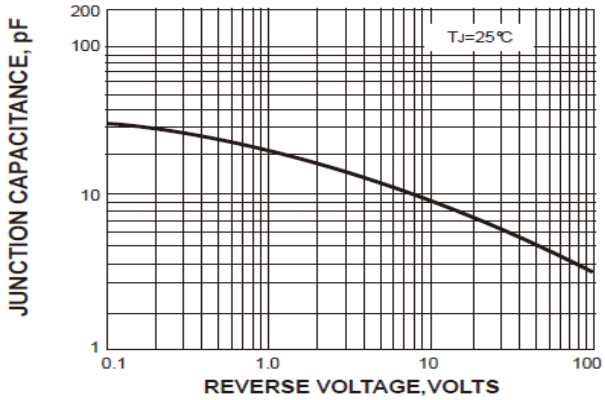
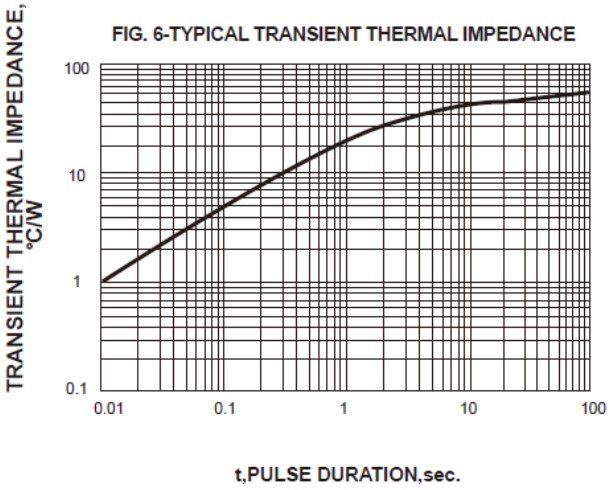


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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