

Features

- ✧ High efficiency, Low VF
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability
- ✧ Low power loss
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 1.2 grams

Maximum Ratings and Electrical Characteristics

Rating 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%

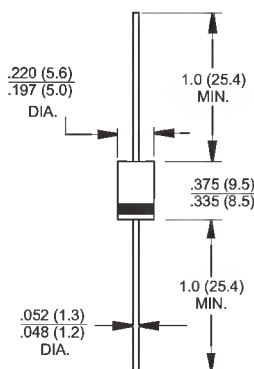
Type Number	Symbol	BY251	BY252	BY253	BY254	BY255	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	800	1300	V
Maximum RMS Voltage	V_{RMS}	140	280	420	560	910	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1300	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 75^\circ C$	$I_{(AV)}$	3.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150					A
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	1.0					V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5.0 100					uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_L=75^\circ C$	HT_{IR}	30					uA
Typical Junction Capacitance (Note 1)	C_j	40					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40					°C/W
Operating Temperature Range	T_J	-65 to +150					°C
Storage Temperature Range	T_{STG}	-65 to +150					°C

- Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
2. Mount on Cu-Pad Size 16mm x 16mm on P.C.B.

BY251 - BY255

3.0 AMPS. Silicon Rectifiers

DO-201AD



Dimensions in inches and (millimeters)

Marking Diagram



- BY25X = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

RATINGS AND CHARACTERISTIC CURVES (BY251 THRU BY255)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

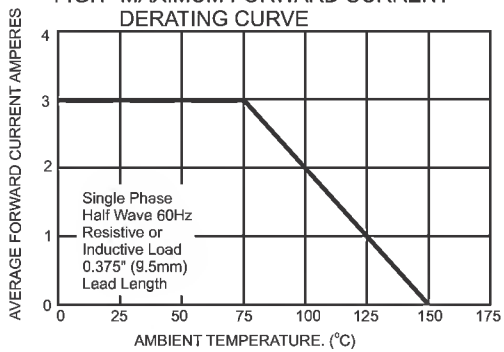


FIG.2- TYPICAL REVERSE CHARACTERISTICS

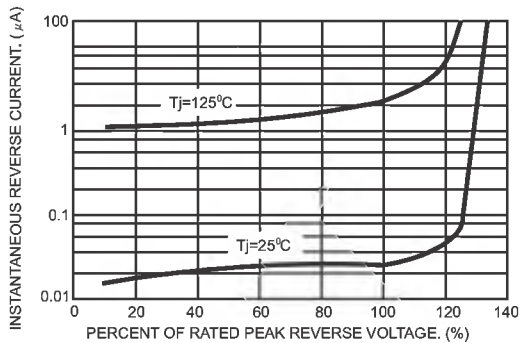


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

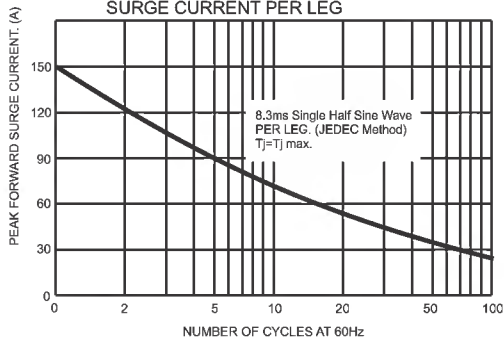


FIG.4- TYPICAL JUNCTION CAPACITANCE

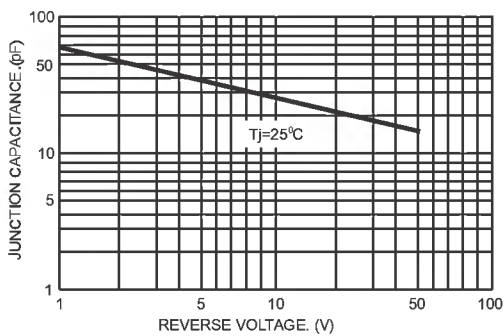


FIG.5- TYPICAL FORWARD CHARACTERISTICS

