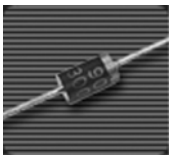
BY251 thru BY255

General Purpose Plastic Rectifiers
Reverse Voltage 200 to 1300 Volts Forward Current 3.0 Amperes

Features

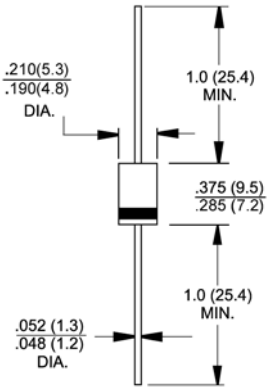
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue



DO-201AD

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds .375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 0.042 ounce, 1.2 grams



Dimensions in inches and (millimeters)

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	BY251	BY252	BY253	BY254	BY255	Units
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1300	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	560	910	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length @T_A=50°C	$I_{(AV)}$	3.0					Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0					Amps
Maximum instantaneous forward voltage @ 3.0A	V_F	1.1					Volts
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=100°C	I_R	5.0 100					uA
Maximum full load reverse current full cycle average, .375" (9.5mm) lead length @T_L=75°C	$I_{R(AV)}$	30					uA
Typical junction capacitance (Note 1)	C_J	60					pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	18					°C/W
Operating junction temperature range	T_J	-55 to +125					°C
Storage temperature range	T_{STG}	-55 to +150					°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
2. Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

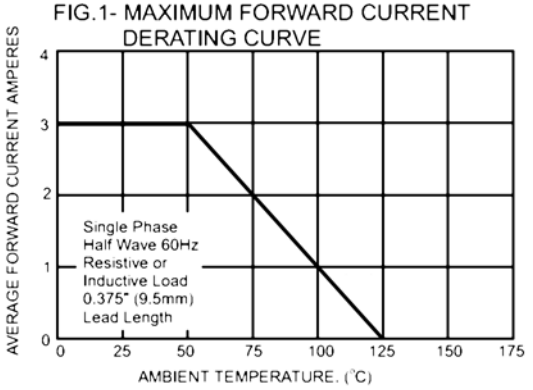


FIG.2- MAXIMUM FORWARD SURGE CURRENT

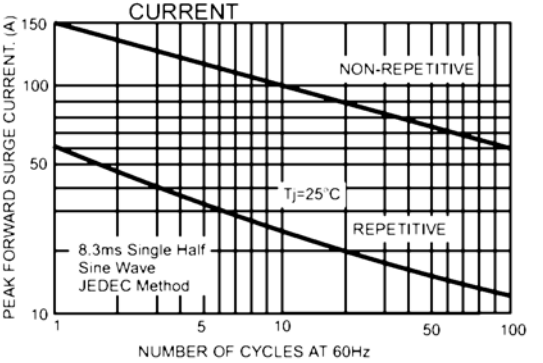


FIG.3- TYPICAL FORWARD CHARACTERISTICS

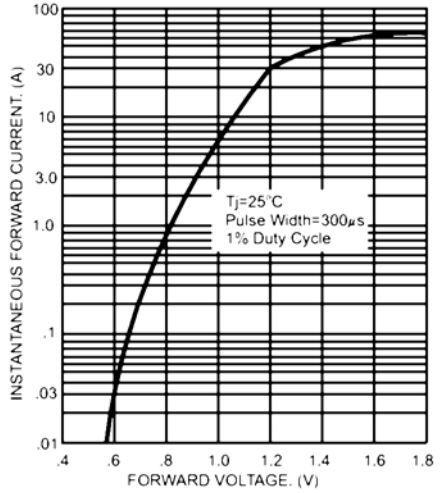


FIG.4- TYPICAL JUNCTION CAPACITANCE

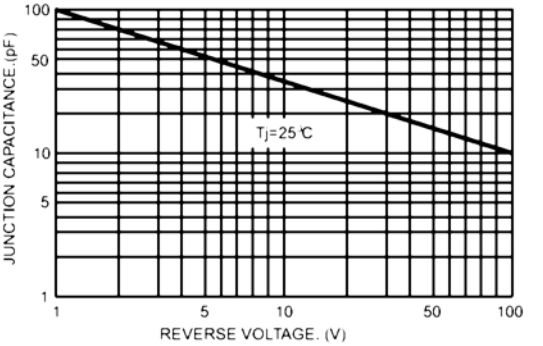


FIG.5- TYPICAL REVERSE CHARACTERISTICS

