



# BY251 thru BY255

**PLASTIC SILICON RECTIFIERS**      REVERSE VOLTAGE - 200 to 1300 Volts  
 FORWARD CURRENT - 3.0 Amperes

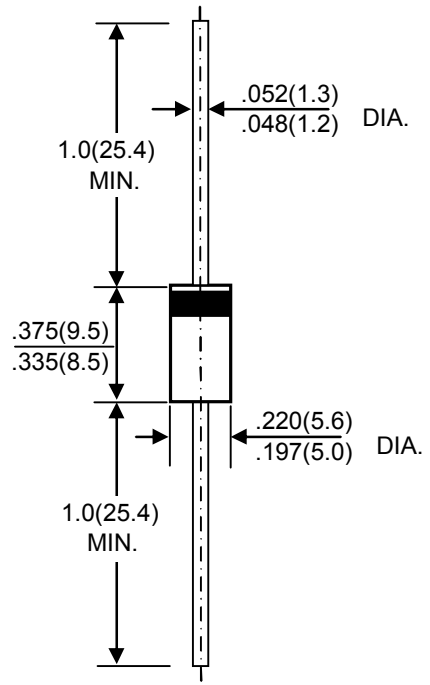
### FEATURES

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

### MECHANICAL DATA

- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04 ounces , 1.1grams
- Mounting position: Any

### DO- 27



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL 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%

CHARACTERISTICS	SYMBOL	BY251	BY252	BY253	BY254	BY255	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	800	1300	V
Maximum RMS Voltage	VRMS	140	280	420	560	910	V
Maximum DC Blocking Voltage	VDC	200	400	600	800	1300	V
Maximum Average Forward Rectified Current @TA =55 °C	I(AV)	3.0					A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Supe Imposed on Rated Load(JEDEC Method)	IFSM	200					A
Maximum Forward Voltage at 3.0A DC	VF	1.2					V
Maximum DC Reverse Current @TJ=25°C at Rated DC Blocking Voltage @TJ=100°C	IR	5.0					µA
Typical Junction Capacitance (Note1)	CJ	50					pF
Typical Thermal Resistance (Note2)	RθJA	15					°C/W
Operating Temperature Range	TJ	-55 to +125					°C
Storage Temperature Range	TSTG	-55 to +150					°C

NOTES:1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction of ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

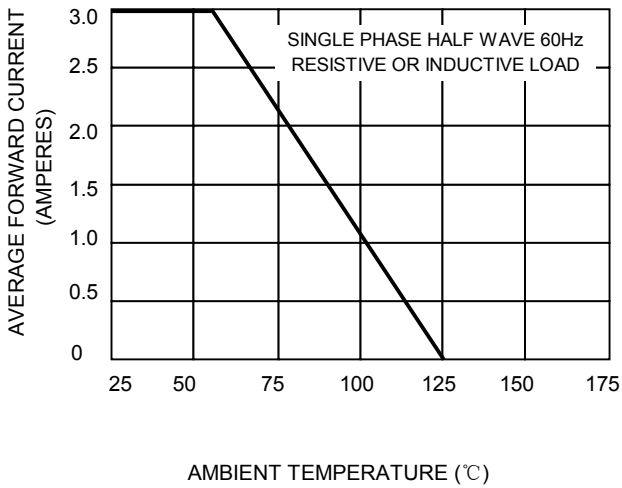


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

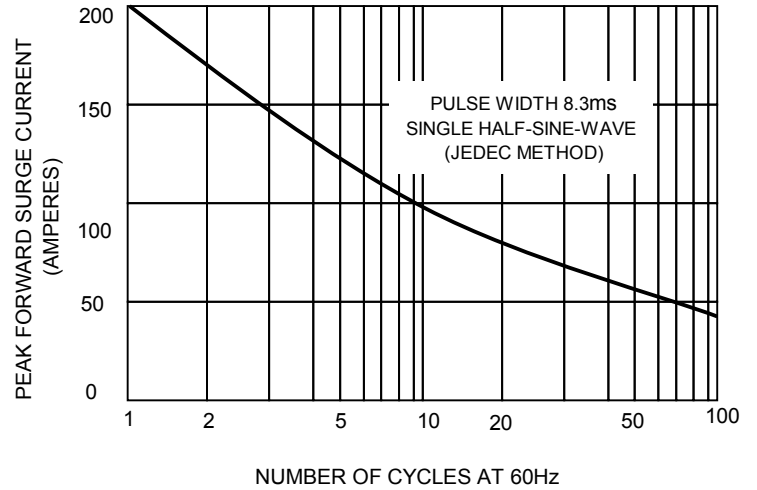


FIG.3 – TYPICAL JUNCTION CAPACITANCE

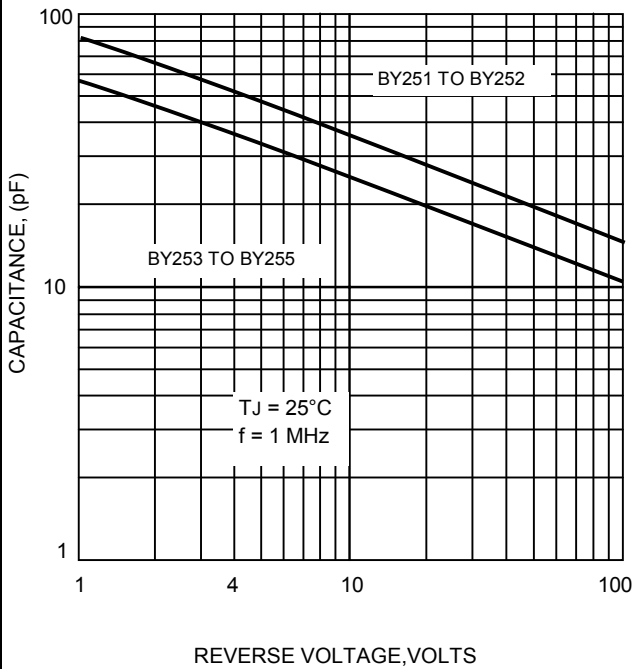


FIG.4-TYPICAL FORWARD CHARACTERISTICS

