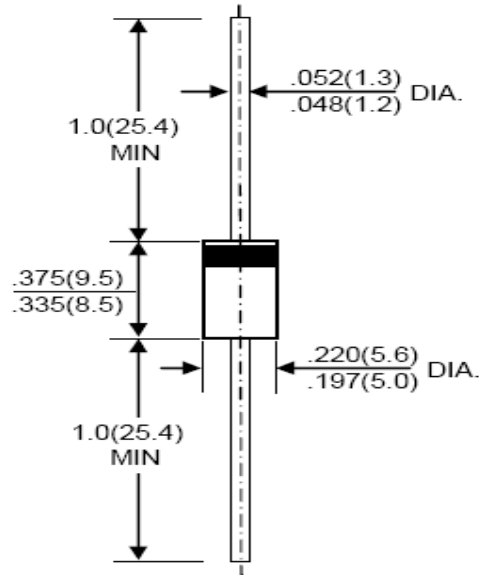


Description
Dechanical Dimensions
BY396~399 Series
FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- 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 , 1.1 grams
- Mounting position: Any



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	BY396	BY397	BY398	BY399	UNIT
		FR302	FR303	FR304	FR306	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	V
Maximum RMS Voltage	V_{RMS}	70	140	280	560	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	800	V
Maximum Average Forward Rectified Current @ $T_A=75^\circ\text{C}$	$I_{(AV)}$	3.0				A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	150				A
Peak Forward Voltage at 3.0A DC	V_F	1.3				V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$	I_R	5.0 100				μA
Maximum Reverse Recovery Time(Note 1)	T_{RR}	150			50	nS
Typical Junction Capacitance (Note2)	C_J	65			40	pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	15				$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +125				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150				$^\circ\text{C}$

 NOTES: 1.Measured with $I_F=0.5A, I_R=1A, I_{RR}=0.25A$

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction of ambient.

RATINGS AND CHARACTERISTIC CURVE BY396~BY399

FIG. 1 – FORWARD CURRENT DERATING CURVE

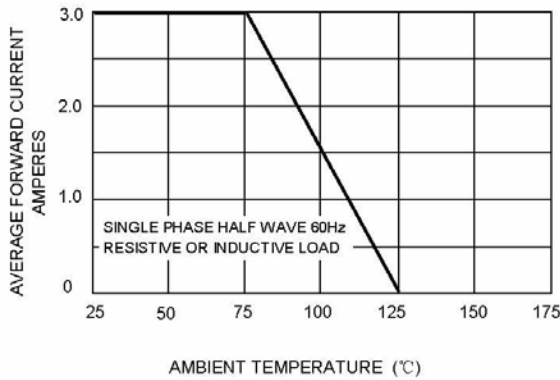


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

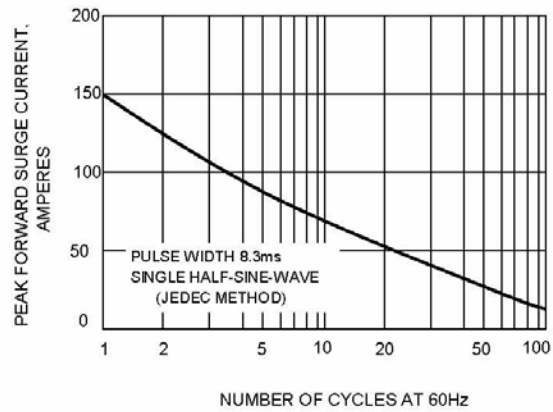


FIG.3 – TYPICAL JUNCTION CAPACITANCE

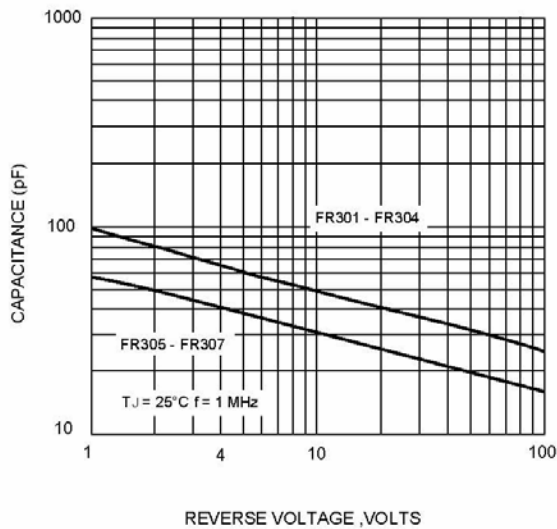


FIG.4-TYPICAL FORWARD CHARACTERISTICS

