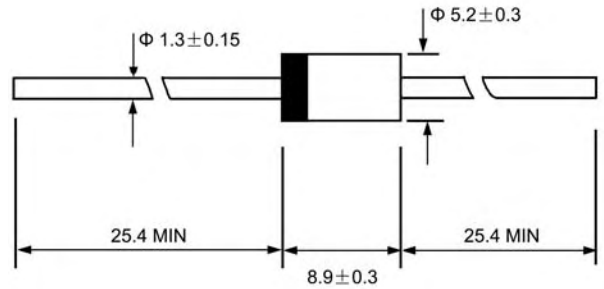


**VOLTAGE RANGE: 100--- 1000 V**

**CURRENT: 2.0 A**

**DO - 27**



Dimensions in millimeters

### Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon,Alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

### Mechanical Data

- ◇ Case:JEDEC DO-27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight:0.041 ounces,1.15 grams
- ◇ Mounting position: Any

### 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 by 20%.

		BY 296	BY 297	BY 298	BY 299	BY 299S	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	100	200	400	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	560	700	V
Maximum DC blocking voltage	$V_{DC}$	100	200	400	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	2.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	70.0					A
Maximum instantaneous forward voltage @ 2.0 A	$V_F$	1.3					V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	10.0 100.0					$\mu A$
Maximum reverse recovery time (Note1)	$t_{rr}$	150					ns
Typical junction capacitance (Note2)	$C_J$	32					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	22					$^\circ C/W$
Operating junction temperature range	$T_J$	- 55---- +150					$^\circ C$
Storage temperature range	$T_{STG}$	- 55---- +150					$^\circ C$

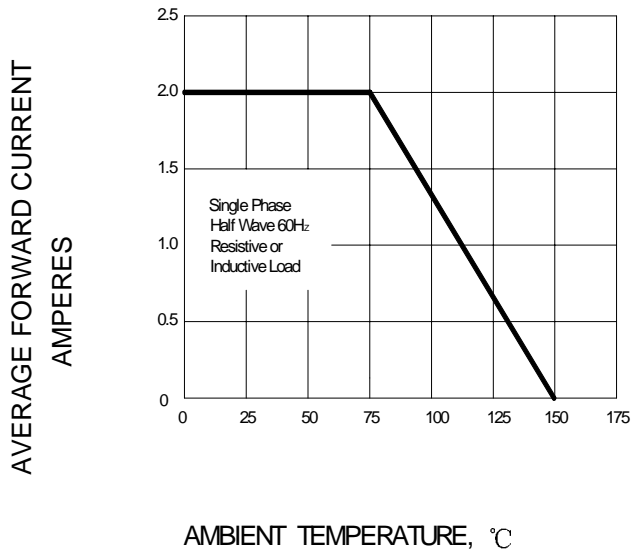
NOTE:1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $t_{rr}=0.25A$ .

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

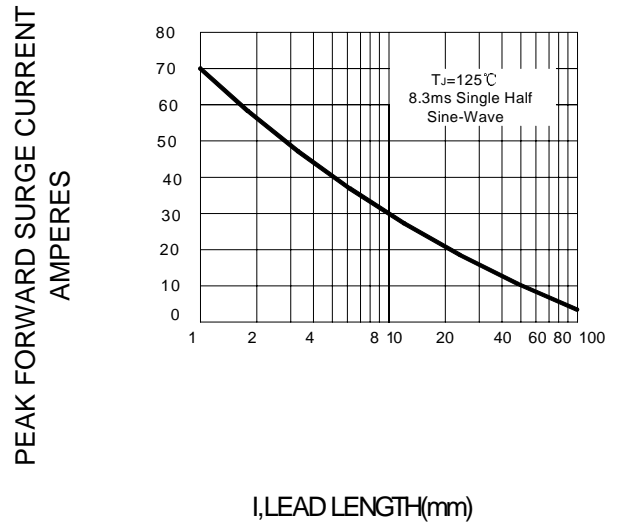
3. Thermal resistance from junction to ambient.

## Ratings AND Characteristic Curves

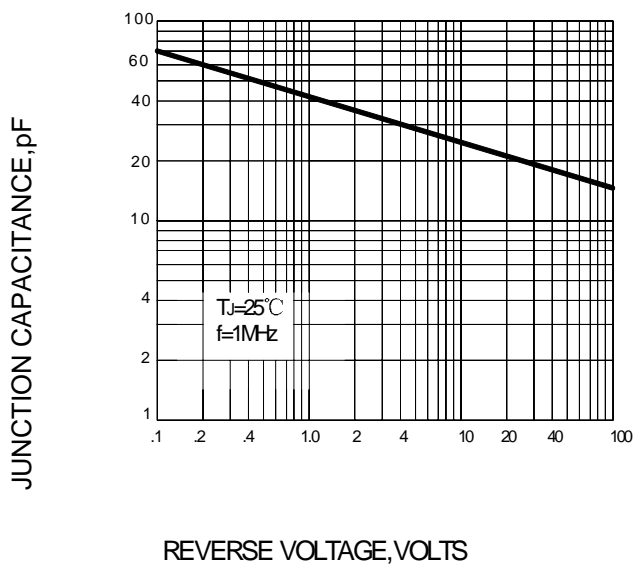
**FIG.1 – FORWARD CURRENT DERATING CURVE**



**FIG.2 – MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 – TYPICAL JUNCTION CAPACITANCE**



**FIG.4 – TYPICAL FORWARD CHARACTERISTICS**

