

**FAST RECOVERY RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **1.0** Ampere

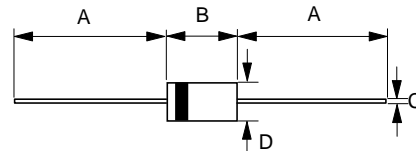
**FEATURES**

- 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 A-405 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.008 ounces, 0.22 grams
- Mounting position : Any

**A-405**



A-405		
Dim.	Min.	Max.
A	25.4	-
B	4.10	5.20
C	0.53 $\varnothing$	0.64 $\varnothing$
D	2.00 $\varnothing$	2.70 $\varnothing$
All Dimensions in millimeter		

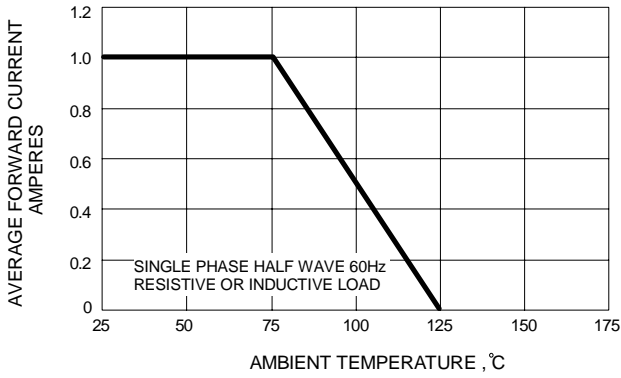
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

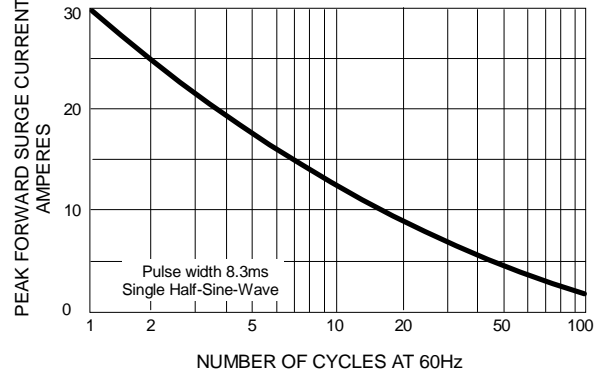
CHARACTERISTICS	SYMBOL	PR1001L	PR1002L	PR1003L	PR1004L	PR1005L	PR1006L	PR1007L	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =75°C	I(AV)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I <sub>FSM</sub>	30							A
Maximum forward Voltage at 1.0A DC	V <sub>F</sub>	1.2							V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	150				250	500		ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	25				15			pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	50							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES : 1.Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A.  
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3.Thermal Resistance Junction to Ambient at .375"(9.5mm) Lead Lengths.

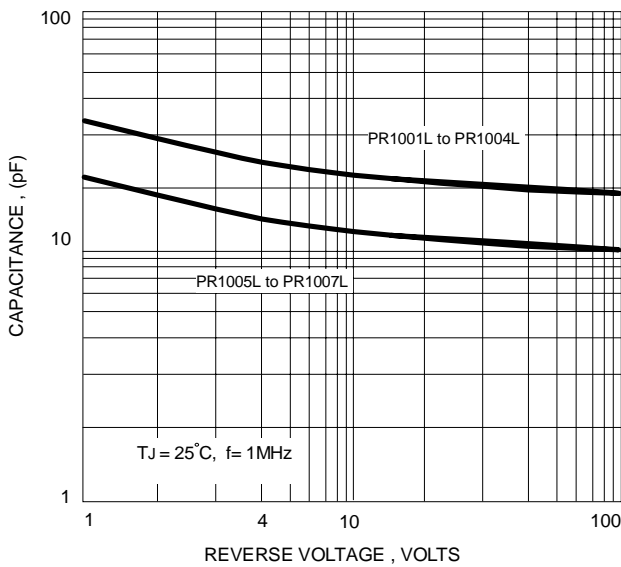
**FIG.1 - FORWARD CURRENT DERATING CURVE**



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



**FIG.3 - TYPICAL JUNCTION CAPACITANCE**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**

