

# P800A - P800K

**PRV : 50 - 800 Volts**  
**Io : 8.0 Amperes**

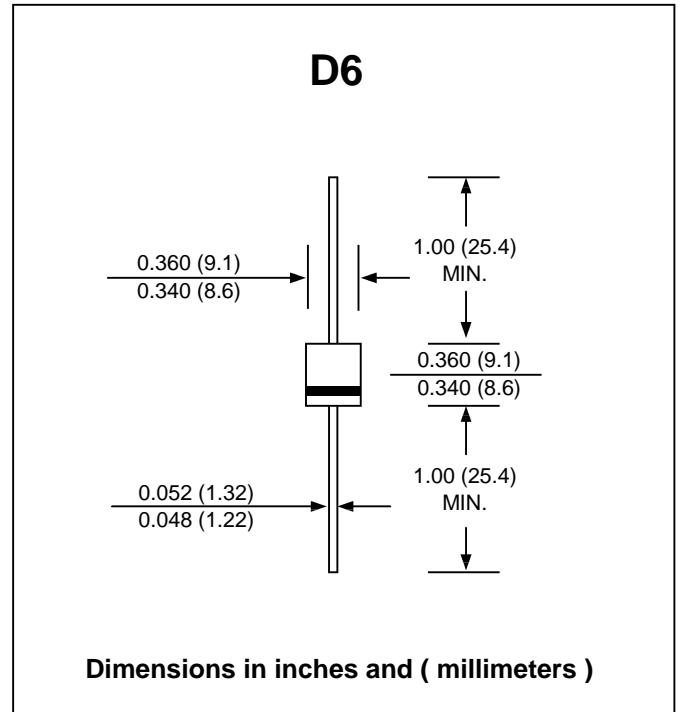
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : Void-free molded plastic body
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 2.1 grams

## SILICON RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

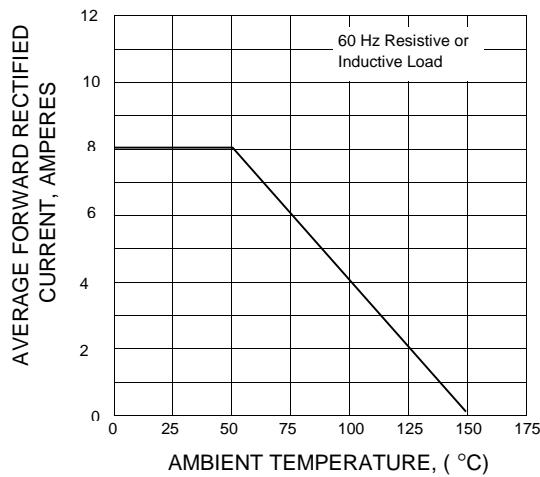
RATING	SYMBOL	P800A	P800B	P800D	P800G	P800J	P800K	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 50\text{ }^\circ\text{C}$	$I_{F(AV)}$	8.0						A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	400						A
Maximum Instantaneous Forward Voltage at $I_F = 8\text{ A}$	$V_F$	1.0						V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	$I_R$	5.0						$\mu\text{A}$
	$I_{R(H)}$	1.0						mA
Typical junction capacitance at 4.0V, 1MHz	$C_J$	150						pF
Typical Thermal Resistance (1)	$R_{\theta JA}$	20						$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	- 50 to + 150						$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 50 to + 150						$^\circ\text{C}$

**Note :**

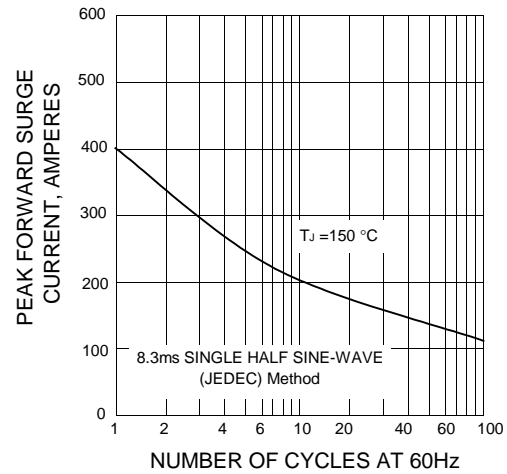
- (1) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 1.1" x 1.1" (30 x 30mm) copper pads

## RATING AND CHARACTERISTIC CURVES ( P800A - P800K )

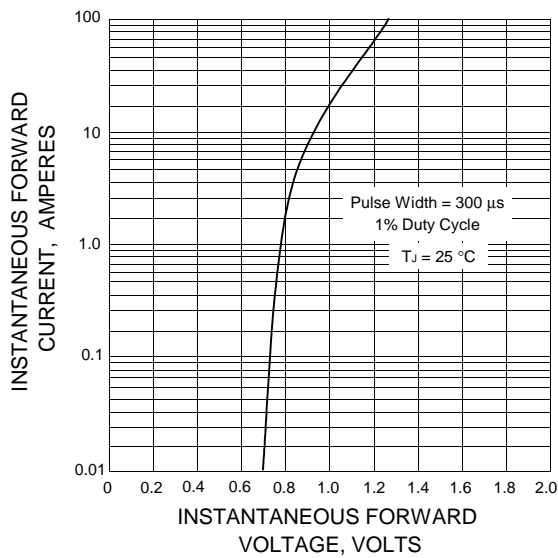
**FIG.1 - MAXIMUM FORWARD CURRENT DERATING CURRENT**



**FIG.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

