

# F1200A, F1200D

**PRV : 50 - 200 Volts**  
**I<sub>o</sub> : 12 Amperes**

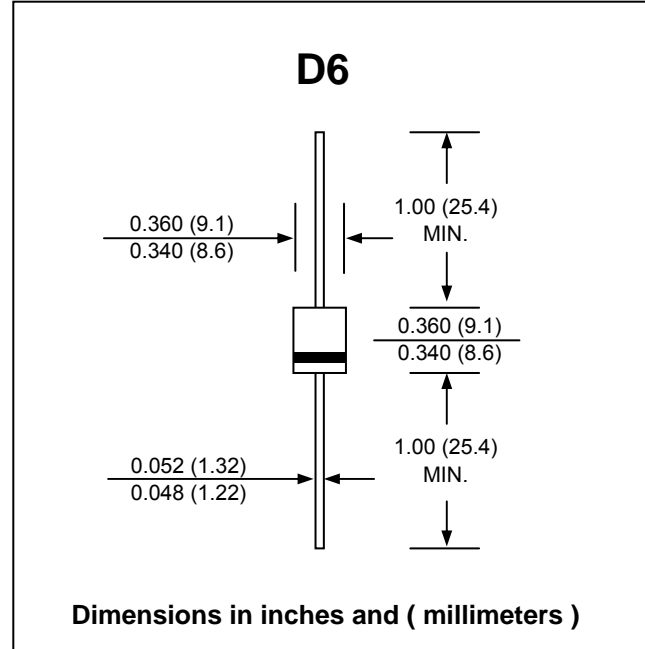
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **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

## FAST RECOVERY RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

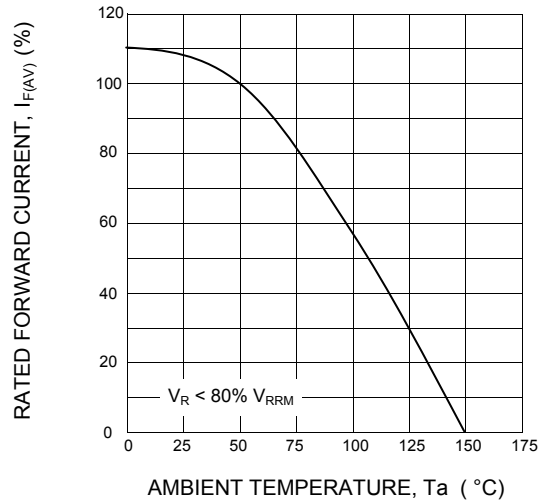
RATING	SYMBOL	F1200A	F1200D	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	200	V
Maximum Surge Peak Reverse Voltage	$V_{RSM}$	50	200	V
Maximum Average Forward Current, R-load, $T_a = 50\text{ }^\circ\text{C}^{(1)}$	$I_{F(AV)}$	12		A
Maximum Repetitive Peak Forward Current ( $f > 15\text{ Hz}$ ) <sup>(1)</sup>	$I_{FRM}$	80		A
Peak Forward Surge Current, 60 Hz half sine-wave	$I_{FSM}$	390		A
Maximum Peak Forward Voltage at $I_F = 5\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	$V_F$	0.85		V
Maximum Reverse Current at $V_R = V_{RRM}$ , $T_j = 25\text{ }^\circ\text{C}$	$I_R$	25		$\mu\text{A}$
Maximum Reverse Recovery Time <sup>(2)</sup>	$T_{rr}$	200		ns
Thermal Resistance Junction to Ambient Air <sup>(1)</sup>	$R_{thA}$	10		K/W
Thermal Resistance Junction to Lead	$R_{thL}$	2.0		K/W
Operating Junction Temperature Range, at Reduced Reverse Voltage , $V_R \leq 80\% V_{RRM}$ $V_R \leq 20\% V_{RRM}$ in DC Forward Mode	$T_J$	- 50 to + 150		$^\circ\text{C}$
	$T_J$	- 50 to + 200		$^\circ\text{C}$
	$T_J$	- 50 to + 200		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 50 to + 175		$^\circ\text{C}$

### Notes :

- (1) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case.
- (2) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1.0\text{ A}$ ,  $I_{rr} = 0.25\text{ A}$ .

## RATING AND CHARACTERISTIC CURVES ( F1200A, F1200D )

**FIG.1 - RATED FORWARD CURRENT VS. AMBIENT TEMPERATURE**



**FIG.2 - TYPICAL FORWARD CHARACTERISTICS**

