

F1200A, F1200D

PRV : 50 - 200 Volts
I_o : 12 Amperes

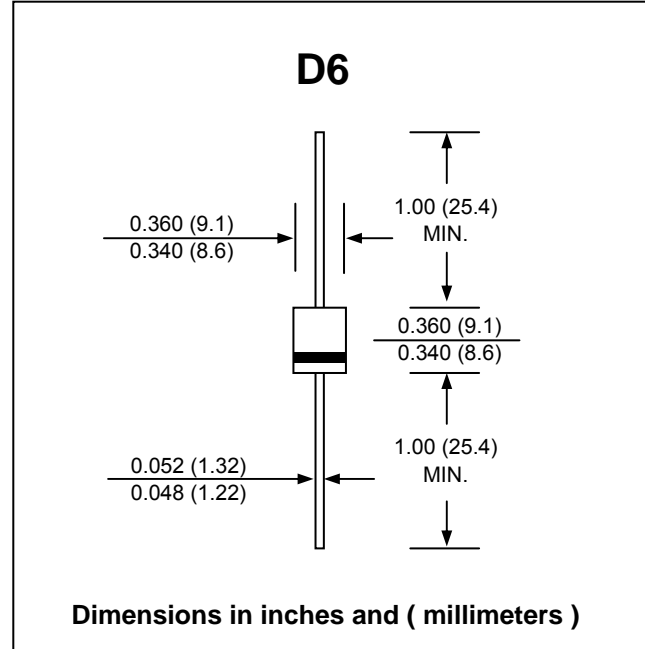
FEATURES :

- * 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 ($f > 15\text{ Hz}$) ⁽¹⁾	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		μA
Maximum Reverse Recovery Time ⁽²⁾	T_{rr}	200		ns
Thermal Resistance Junction to Ambient Air ⁽¹⁾	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

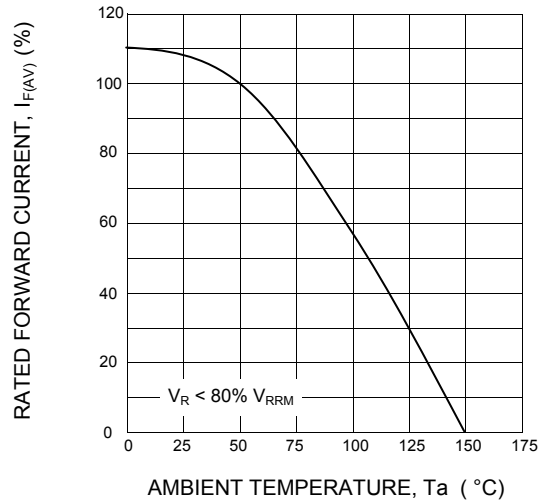


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

