

F1200A, F1200D

PRV : 50 - 200 Volts
I_o : 12 Amperes

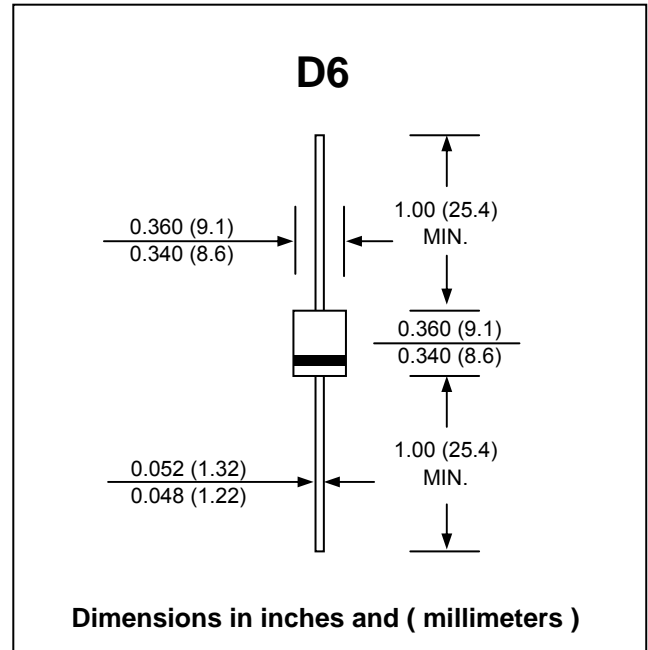
FEATURES :

- * 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 °C ⁽¹⁾	I _{F(AV)}	12		A
Maximum Repetitive Peak Forward Current (f > 15 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 A , T _j = 25 °C	V _F	0.85		V
Maximum Reverse Current at V _R = V _{RRM} , T _j = 25 °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 ≤ 80% V _{RRM} V _R ≤ 20% V _{RRM}	T _J	- 50 to + 150		°C
	T _J	- 50 to + 200		°C
	T _J	- 50 to + 200		°C
in DC Forward Mode	T _J	- 50 to + 200		°C
Storage Temperature Range	T _{STG}	- 50 to + 175		°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 A, I_R = 1.0 A, I_{rr} = 0.25 A.

RATING AND CHARACTERISTIC CURVES (F1200A, F1200D)

FIG.1 - RATED FORWARD CURRENT VS. AMBIENT TEMPERATURE

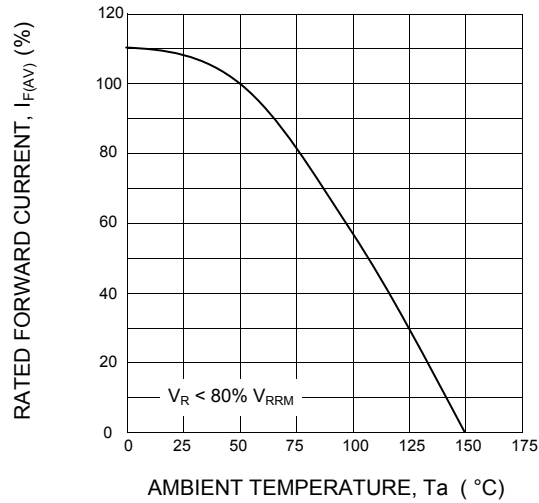


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

