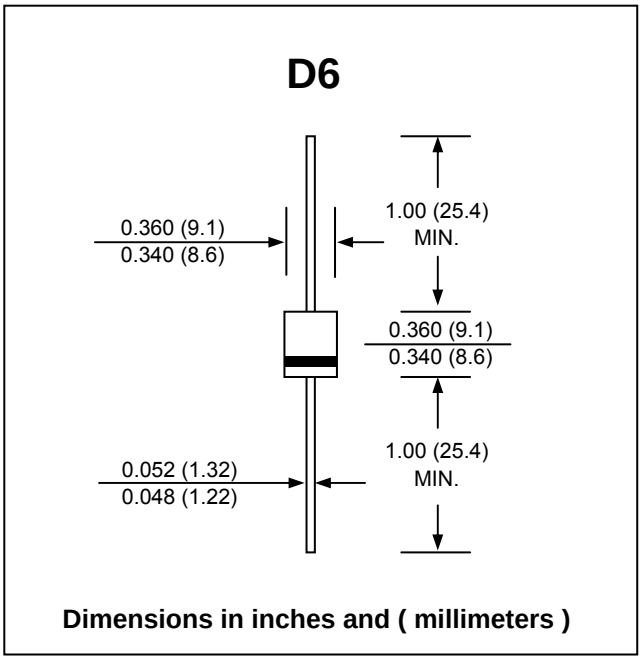
F1200A, F1200D

FAST RECOVERY RECTIFIER DIODES

PRV : 50 - 200 Volts
Io : 12 Amperes



Dimensions in inches and (millimeters)

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

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, Ta = 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 , Tj = 25 °C	V_F	0.85		V
Maximum Reverse Current at $V_R = V_{RRM}$, Tj = 25 °C	I_R	25		µA
Maximum Reverse Recovery Time (2)	Trr	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 , $V_R \le 80\% V_{RRM}$	T_J	- 50 to + 150		°C
$V_R \le 20\% V_{RRM}$	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, Irr = 0.25 A.

RATING AND CHARACTERISTIC CURVES (F1200A, F1200D)

FIG.1 - RATED FORWARD CURRENT VS. AMBIENT TEMPERATURE

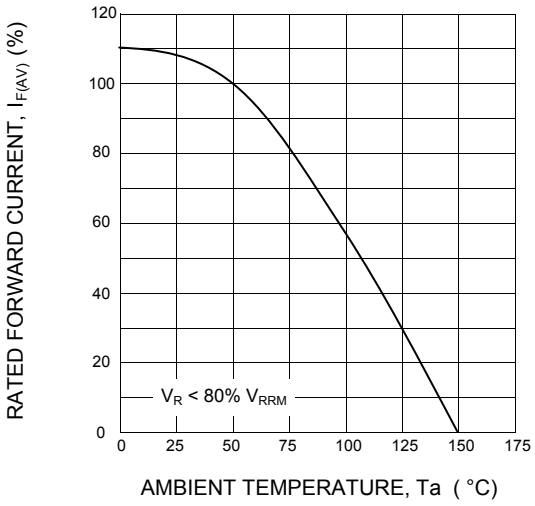


FIG.2 - TYPICAL FORWARD CHARACTERISTICS