

## Features

- Low reverse leakage
- High forward surge capability
- High reliability
- High temperature soldering guaranteed:  
260°C/10seconds,9.5mm lead length
- Lead and body according with RoHS standard
- Green compound with suffix "-F" on Marking



**Axial Leaded  
P600**

## Mechanical Data

- Case:P600 Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free

## Maximum Ratings & Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

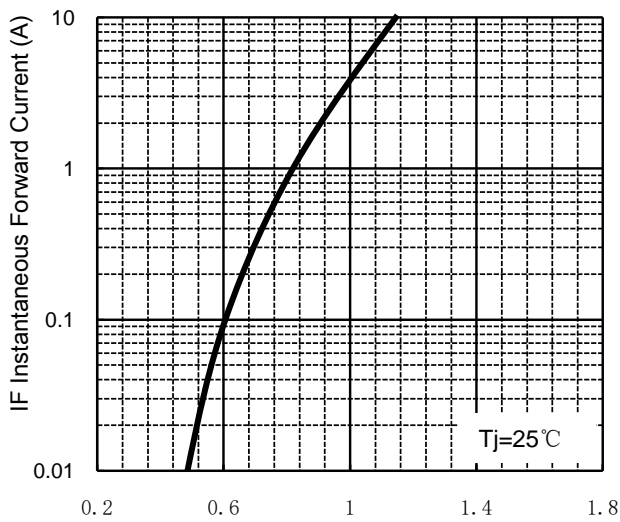
Parameter	Symbols	FR601	FR602	FR603	FR604	FR605	FR606	FR607	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	300	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	430	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	300	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	6.0							A
Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave	$I_{FSM}$	180							A
@ $I_F=6.0$ A Maximum forward voltage	$V_F$	1.3							V
@ $V_{DC}$ Maximum reverse current	$I_R$	5.0							$\mu$ A
$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$		100							
$I_F=0.5$ A , $I_R=1.0$ A , $I_{RR}=0.25$ A MAX. reverse recovery time	$T_{RR}$	150				250	500	nS	
Typical thermal resistance (Note 1)	$R_{\theta JA}$	20							$^\circ\text{C/W}$
$V_R=4.0$ V, $f=1$ MHz Type junction capacitance	$C_J$	110							pF
Operating junction and storage temperature rang	$T_J, T_{STG}$	-55 --- +150							$^\circ\text{C}$

Note:

1) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted.

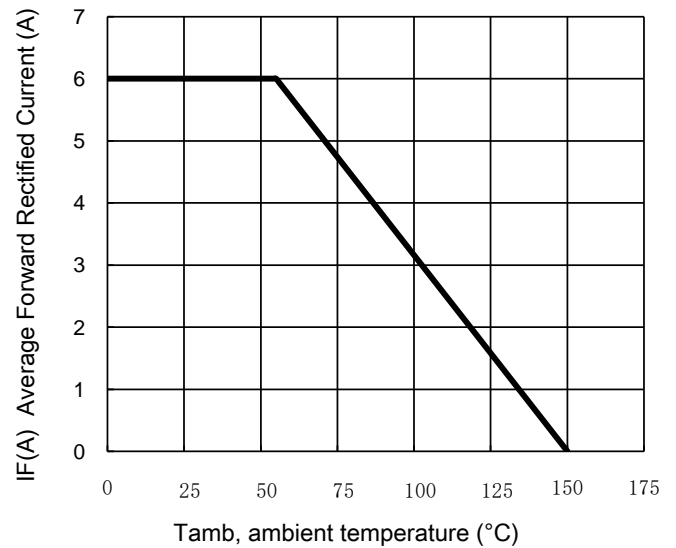
## Characteristic Curves

TYPICAL FORWARD CHARACTERISTIC

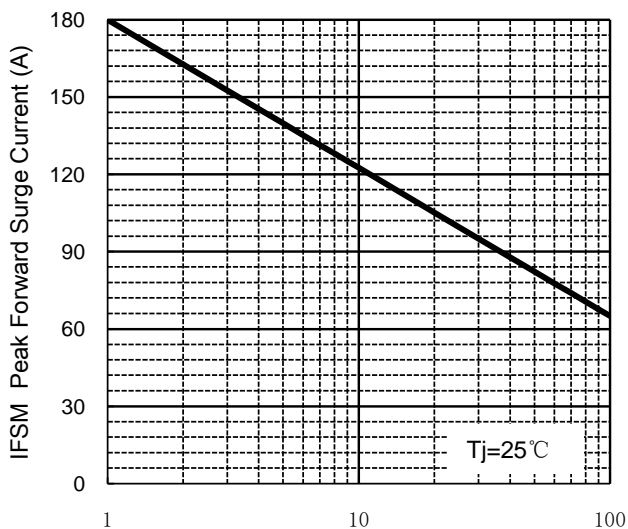


VF Instantaneous Forward Voltage (V)

FORWARD CURRENT DERATING CURVE

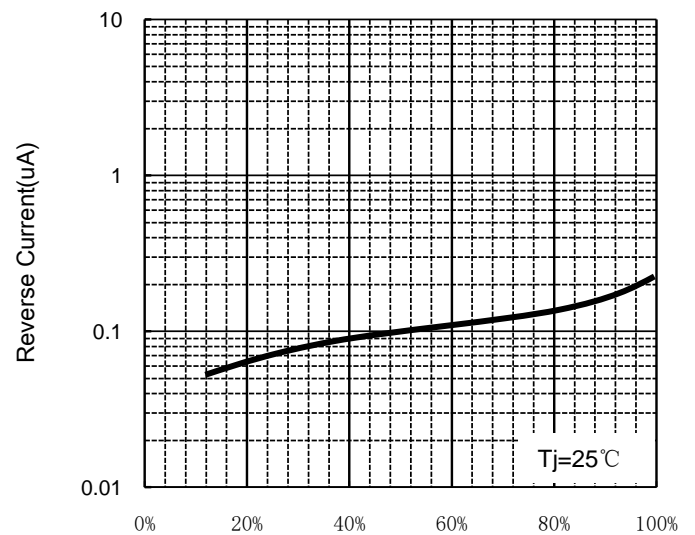


MAXIMUM NON REPETITIVE  
PEAK FORWARD SURGE CURRENT



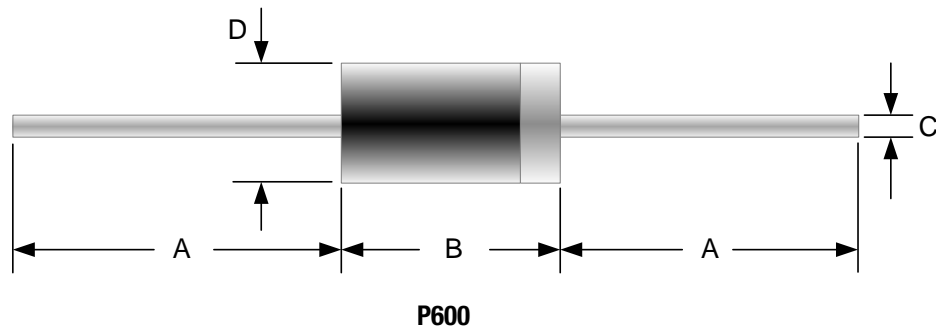
Number of Cycles at 60 Hz.

Typical Reverse Characteristics



Percent Of Rated Peak Reverse voltage %

## Package Outline



Ref. ( mm )	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	1.000	-	25.40	-
B	0.340	0.360	8.60	9.10
C	0.048	0.052	1.20	1.30
D	0.340	0.360	8.60	9.10

## Package Information

Qty: 500/Tape and reel  
 100/Bulk