



# 1F1~1F7

## FAST RECOVERY PLASTIC RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 1.0 Amperes

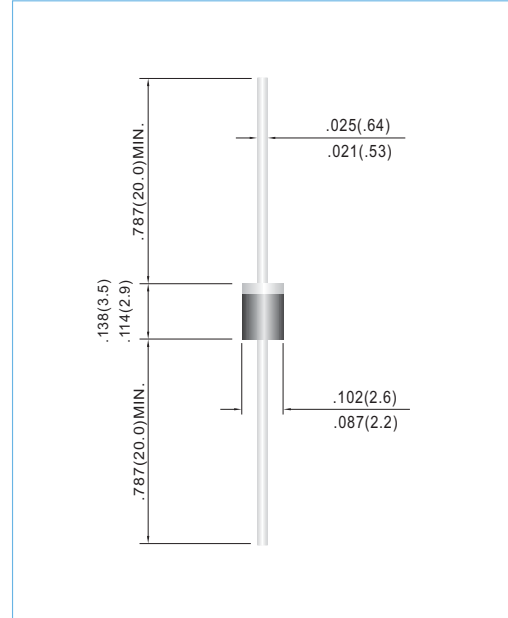
**R-1** Unit: inch(mm)

### FEATURES

- High current capability.
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low leakage.
- Fast switching for high efficiency.
- Exceeds environmental standards of MIL-S-19500/228
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- Case: Molded plastic, R-1
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.0068 ounce, 0.1937 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

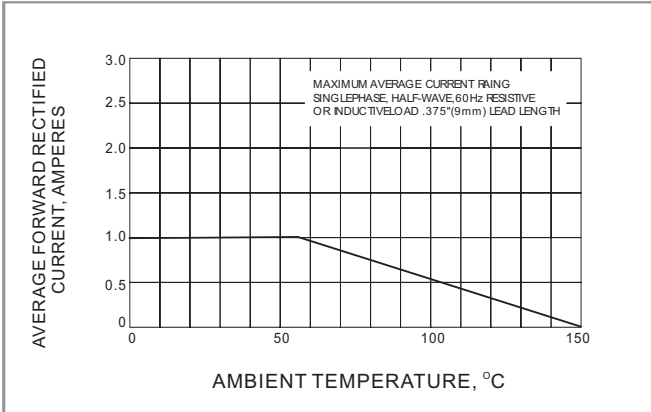
PARAMETER	SYMBOL	1F1	1F2	1F3	1F4	1F5	1F6	1F7	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1.0A	$V_F$	1.3							V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
Typical Junction capacitance (Note 1)	$C_J$	12							pF
Maximum Reverse Recovery Time	$t_{rr}$	150				250	500		ns
Typical Thermal Resistance	$R_{\theta JA}$	67							$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

NOTES:1. Reverse Recovery Test Conditions:  $I_F=.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=.25\text{A}$   
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC  
 3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted with 0.22 x 0.22" ( 5.5 x 5.5mm ) copper pads.

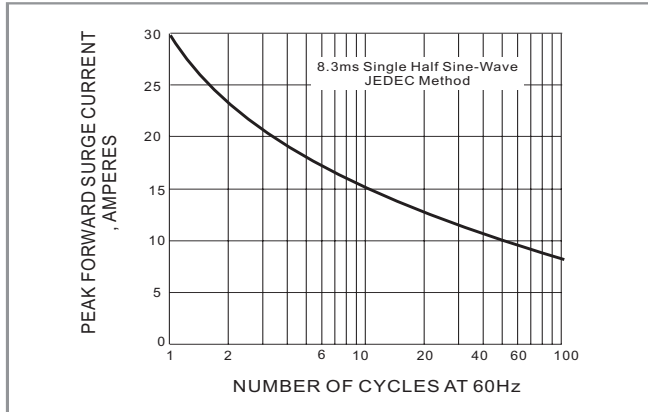


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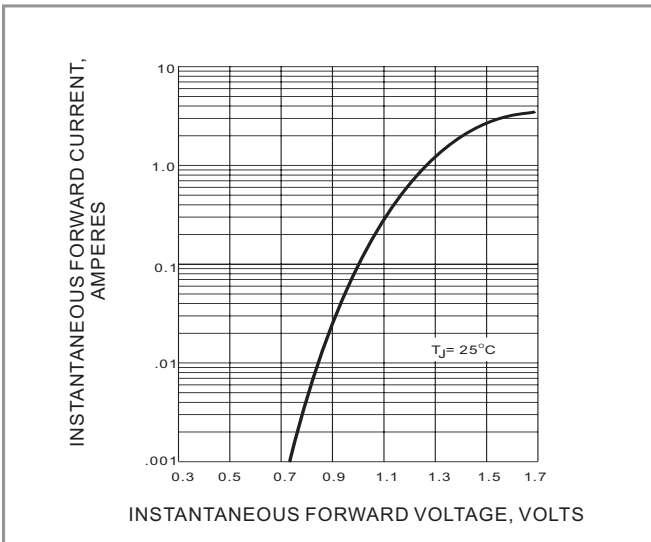
## RATING AND CHARACTERISTIC CURVES



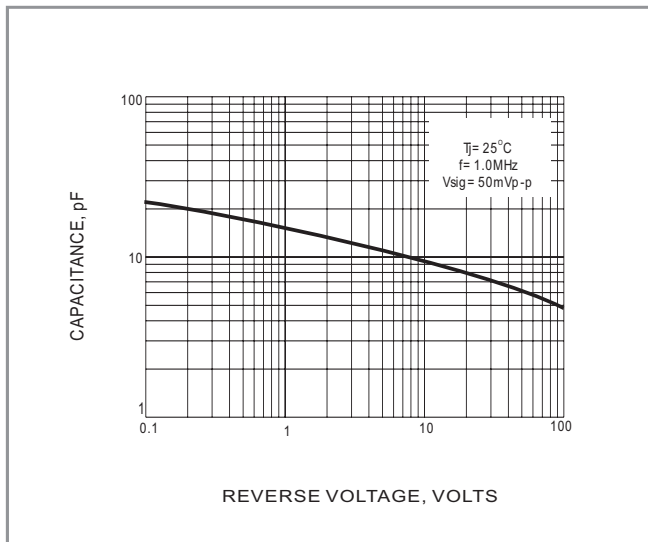
**Fig.1 FORWARD CURRENT DERATING CURVE**



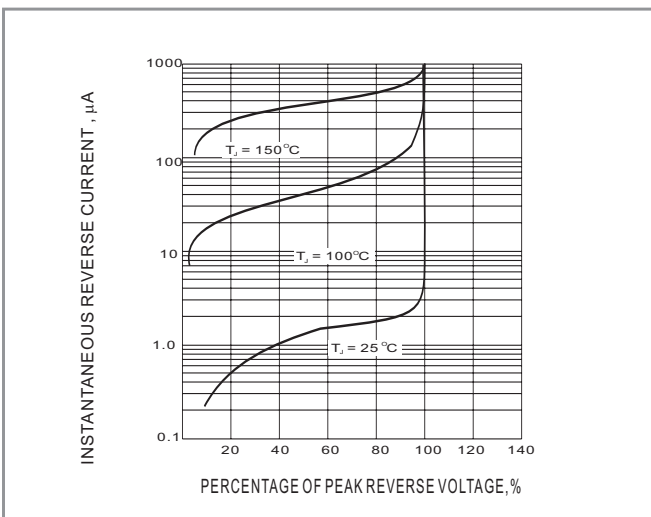
**Fig.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.4 TYPICAL JUNCTION CAPACITANCE**



**Fig.5-TYPICAL REVERSE CHARACTERISTIC**



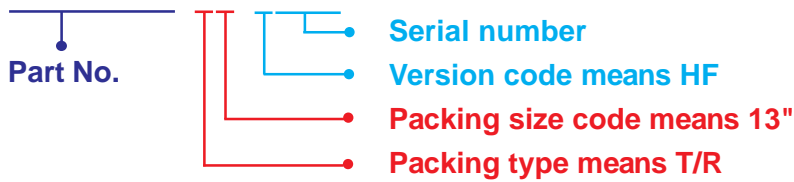
# 1F1~1F7

## Part No\_packing code\_Version

- 1F1\_AX\_00001
- 1F1\_AX\_10001
- 1F1\_AY\_00001
- 1F1\_AY\_10001
- 1F1\_BO\_00001
- 1F1\_BO\_10001
- 1F1\_R2\_00001
- 1F1\_R2\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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