



1F1-1F7 Fast Recovery Rectifier

Feature

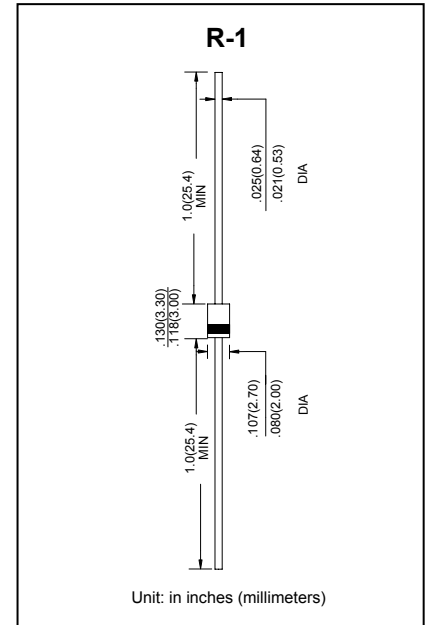
- I_o 1A
- V_{RRM} 50V-1000V
- Low reverse leakage
- High surge current capability

Application

- Rectifier

Application

- 1FX
X : From 1 To 7



ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	1F							Unit
		1	2	3	4	5	6	7	
Repetitive 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
Average Forward Current 60Hz Half-sine wave, Resistance load, $T_a=50^\circ\text{C}$	$I_{F(AV)}$	1							A
Non-repetitive Peak Forward Surge Current 60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	25							A
Junction Temperature	T_J	-55 ~ +125							$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +125							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	1F							Unit	
			1	2	3	4	5	6	7		
Peak Forward voltage	V_{FM}	$I_{FM}=1\text{A}$	1.3							V	
Peak Reverse Current	I_{RRM1}	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$							5	μA
	I_{RRM2}		$T_a=125^\circ\text{C}$							50	μA
Reverse Recovery time	t_{rr}	$I_F=0.5\text{A}$ $I_R=1\text{A}$ $I_{RR}=0.25\text{A}$	150			250	500		ns		
Thermal Resistance (Typical)	$R_{\theta J-A}$	Between junction and ambient	50							$^\circ\text{C}/\text{W}$	

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

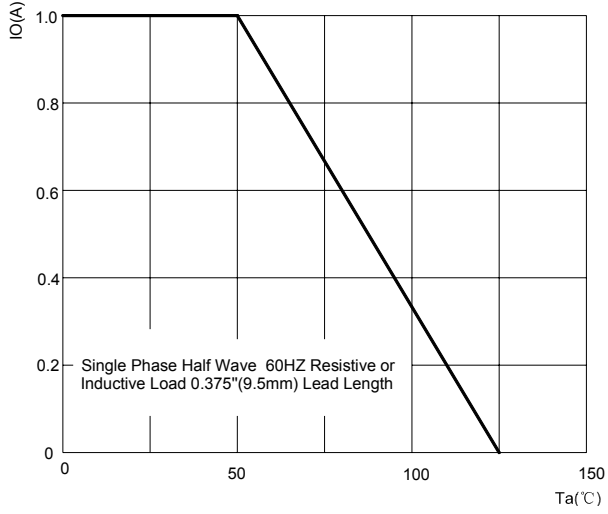


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

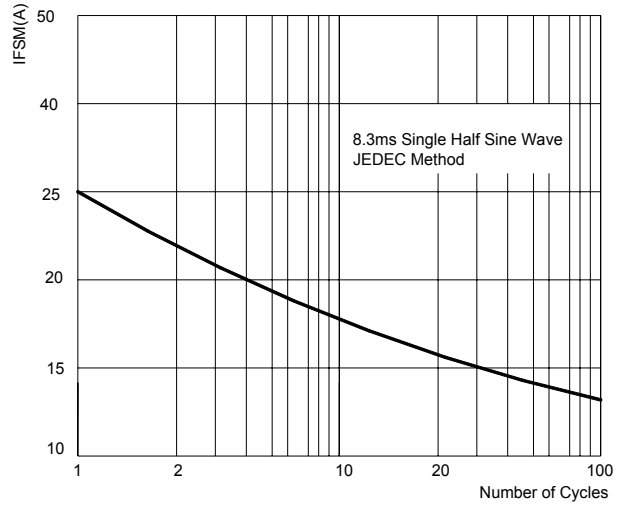


FIG.3: TYPICAL FORWARD CHARACTERISTICS

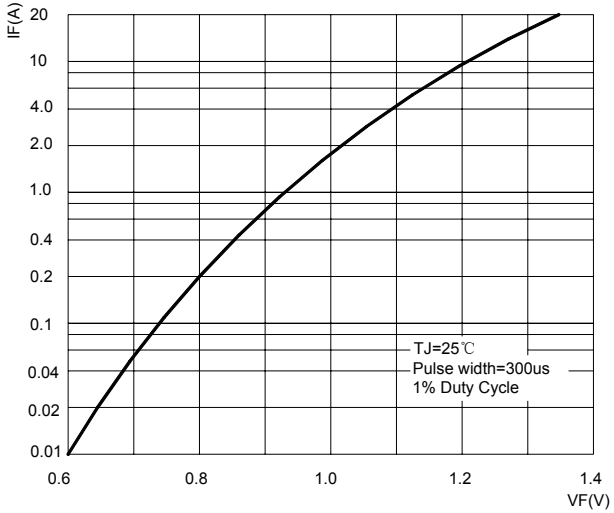


FIG.4: TYPICAL REVERSE CHARACTERISTICS

