



#### 1F10-1F20 Fast Recovery Rectifier

##### Feature

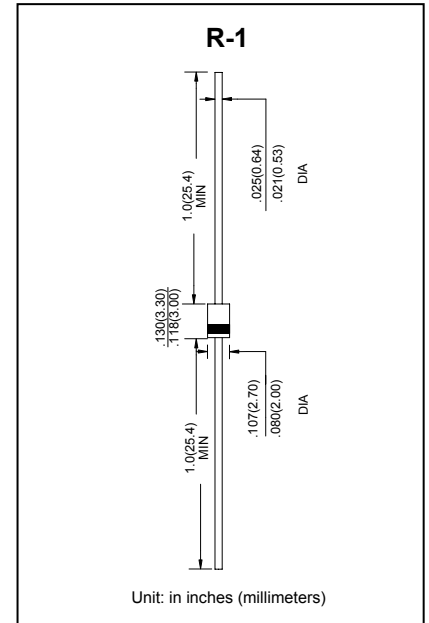
- $I_o$  0.5A
- $V_{RRM}$  1000V-2000V
- Low reverse leakage
- High surge current capability

##### Application

- Rectifier

##### Application

- 1FX  
X : From 10 To 20



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

Parameter	Symbol	1F							Unit
		10	12	14	15	16	18	20	
Repetitive Peak Reverse Voltage	$V_{RRM}$	1000	1200	1400	1500	1600	1800	2000	V
Maximum RMS Voltage	$V_{RMS}$	700	840	980	1050	1120	1260	1400	V
Average Forward Current 60Hz Half-sine wave, Resistance load, $T_a=50^\circ\text{C}$	$I_{F(AV)}$	0.5							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
			10	12	14	15	16	18	20	
Peak Forward voltage	$V_{FM}$	$I_{FM}=0.5A$	1.8							V
Peak Reverse Current	$I_{RRM1}$	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$		5					$\mu\text{A}$
	$I_{RRM2}$		$T_a=100^\circ\text{C}$		100					$\mu\text{A}$
Reverse Recovery time	$t_{rr}$	$I_F=0.5A$ $I_R=1A$ $I_{RR}=0.25A$	300							$^\circ\text{C}/\text{W}$
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

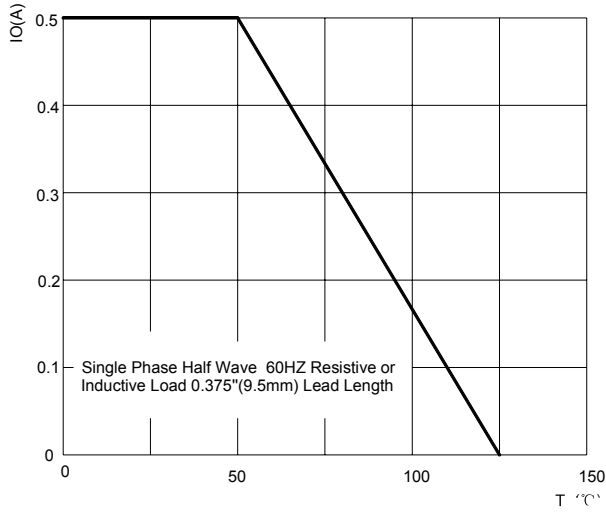


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

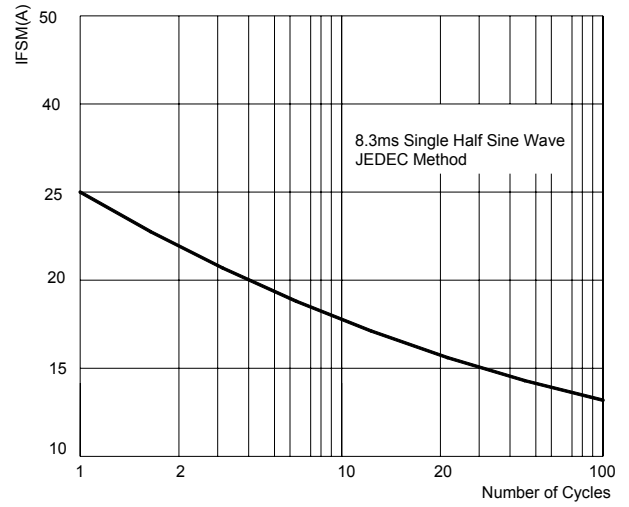


FIG.4: TYPICAL REVERSE CHARACTERISTICS

