

DO-15 Plastic-Encapsulate Diodes

Super Fast Recovery Rectifier Diode

Features

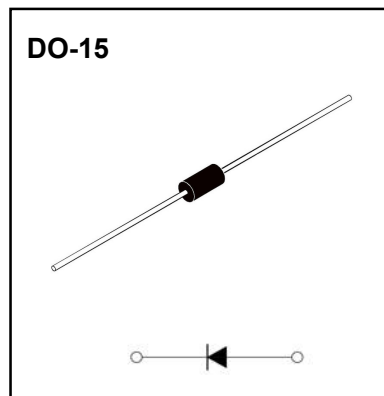
- I_o 2A
- V_{RRM} 50V-600V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- SF2X
X: From 1 to 8



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	SF							
				21	22	23	24	25	26	27	28
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	150	200	300	400	500	600
Maximum RMS Voltage	V_{RMS}	V		35	70	105	140	210	280	350	420
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_a=50^\circ\text{C}$	2.0							
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	50							
Junction Temperature	T_J	$^\circ\text{C}$		-55~+125							
Storage Temperature	T_{STG}	$^\circ\text{C}$		-55 ~ +150							

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	SF								
				21	22	23	24	25	26	27	28	
Peak Forward Voltage	V_{FM}	V	$I_{FM}=2.0A$	0.95				1.25	1.7			
Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	$T_a=25^\circ\text{C}$				5				
	I_{RRM2}			$T_a=125^\circ\text{C}$				50				
Reverse Recovery time	t_r	ns	$I_F=0.5A$ $I_R=1A$ $I_{RR}=0.25A$	35								
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient	55								
	$R_{\theta J-L}$		Between junction and lead	20								

FIG.1: FORWARD CURRENT DERATING CURVE

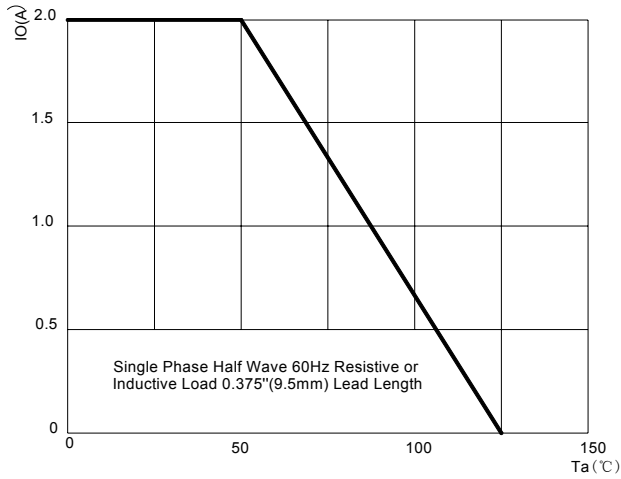


FIG.2 : MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

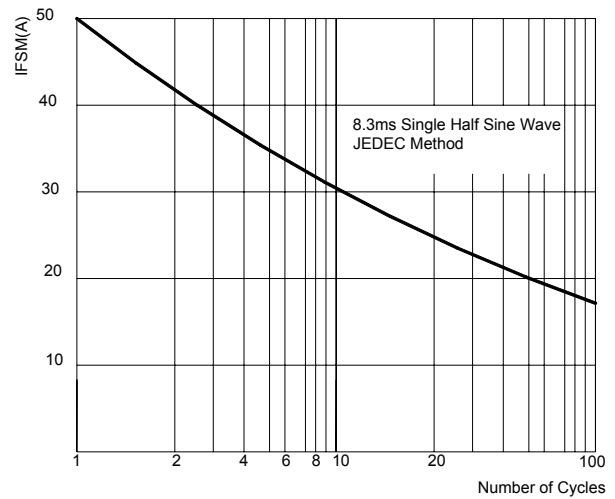


FIG.3: TYPICAL FORWARD CHARACTERISTICS

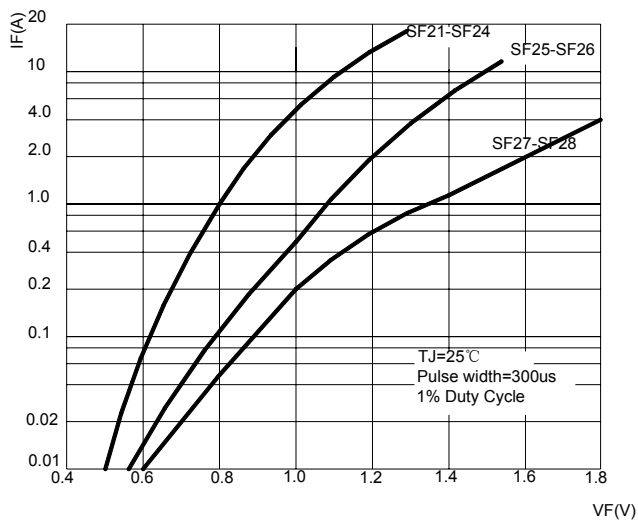


FIG.4:TYPICAL REVERSE CHARACTERISTICS

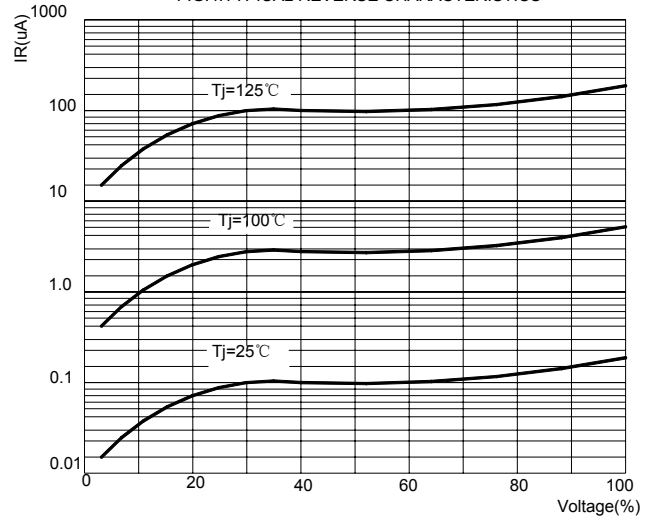
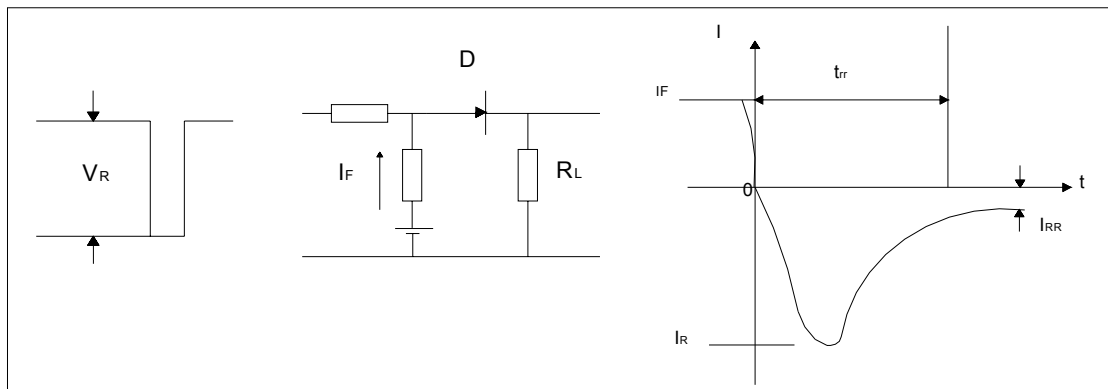
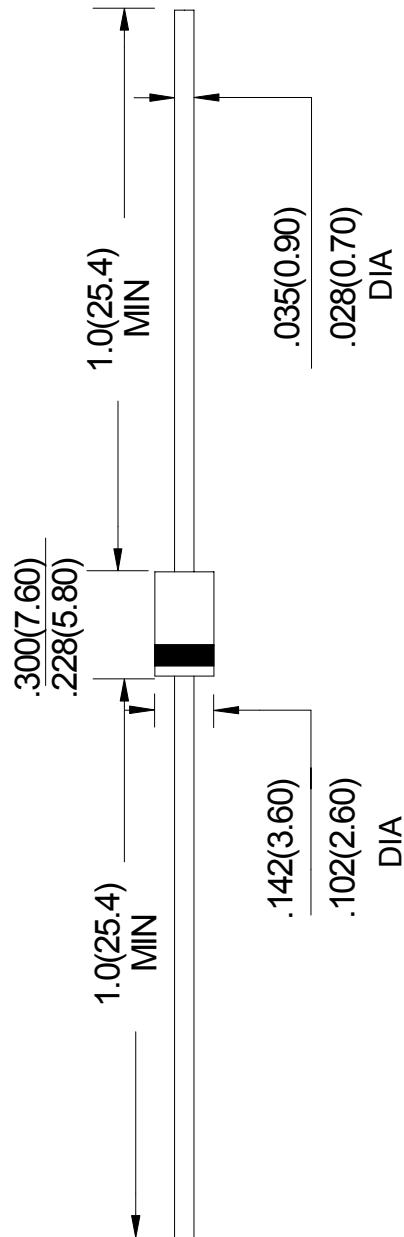


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time





Unit: in inches (millimeters)