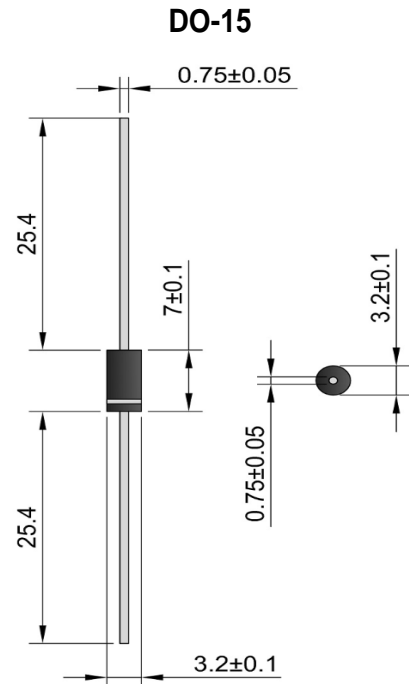


## Features

- Diffused Junction
- Low Forward Voltage Drop
- High Surge Current Capability
- High Reliability
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

## Mechanical Data

- Case: DO-15, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version**



## Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	SF21	SF22	SF23	SF24	SF25	SF26	SF27	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	420	V
Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$	$I_O$	2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Forward Voltage @ $I_F = 2.0\text{A}$	$V_{FM}$	0.95			1.3		1.7		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	5.0			100				$\mu\text{A}$
Reverse Recovery Time (Note 2)	$t_r$	35							nS
Typical Junction Capacitance (Note 3)	$C_J$	40			30				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{JA}$	40							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance Junction to Lead (Note 1)	$R_{JL}$	15							
Operating Temperature Range	$T_J$	-65 to +125							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +150							$^\circ\text{C}$

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

2. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .

3. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.

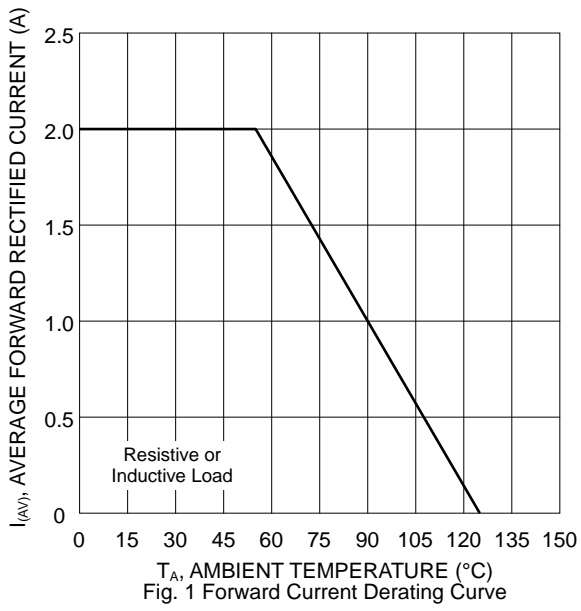


Fig. 1 Forward Current Derating Curve

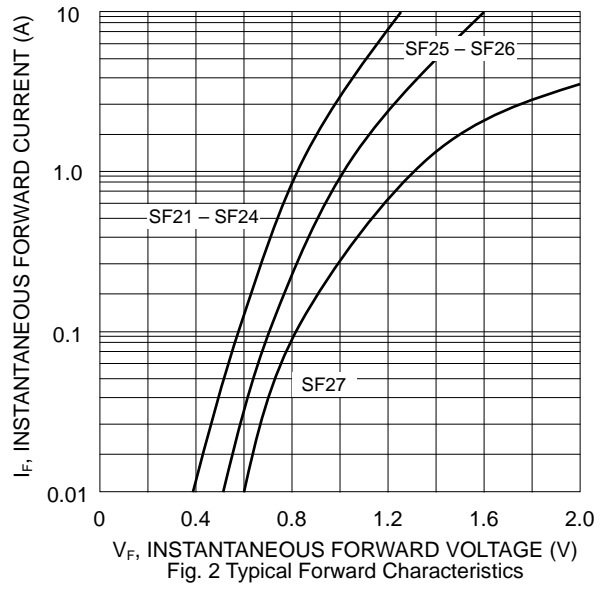


Fig. 2 Typical Forward Characteristics

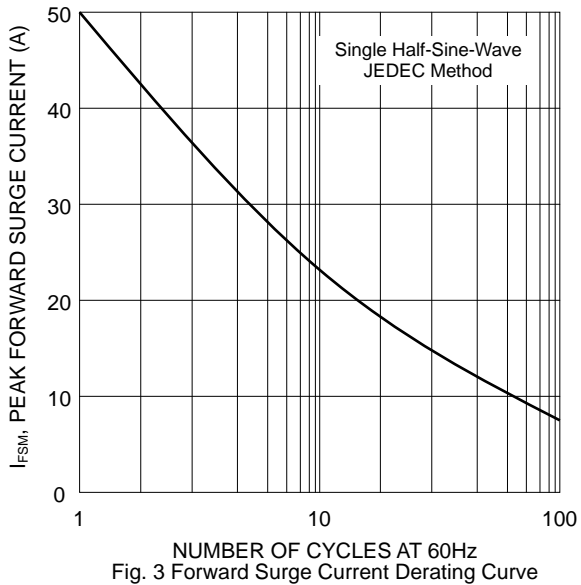


Fig. 3 Forward Surge Current Derating Curve

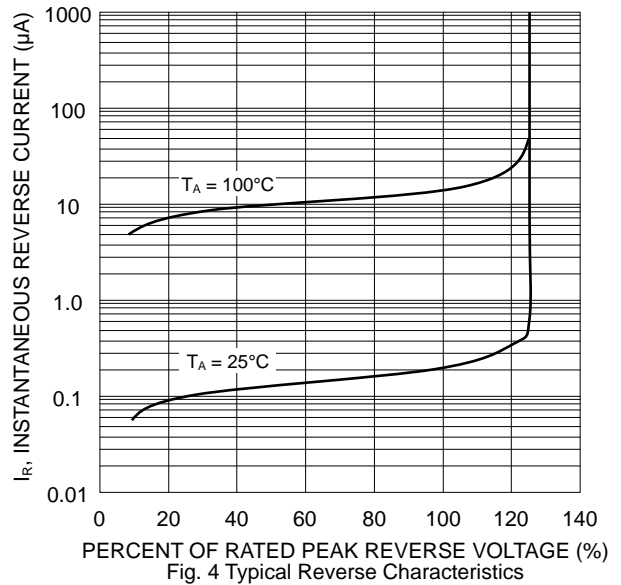


Fig. 4 Typical Reverse Characteristics

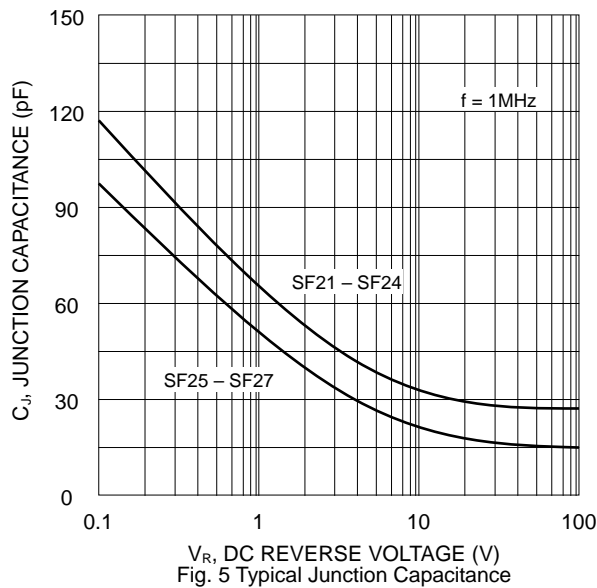
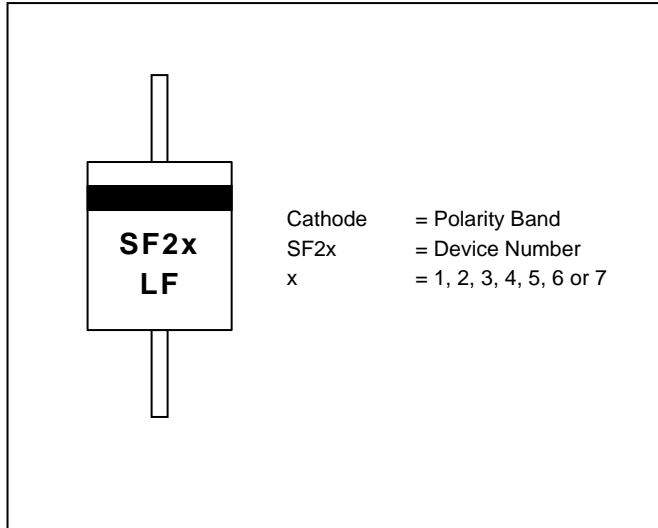
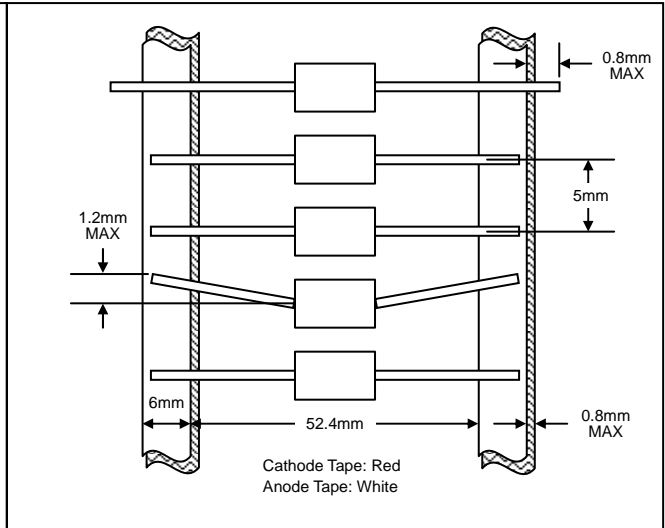


Fig. 5 Typical Junction Capacitance

## MARKING INFORMATION



## TAPING SPECIFICATIONS



## PACKAGING INFORMATION

### TAPE & REEL

330mm  
 Product ID Label  
 80±5mm

### TAPE & BOX

150mm  
 255mm  
 75mm  
 Product ID Label  
 Inspection Hole (both ends)

### BULK

25mm  
 200mm  
 85mm

Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>TAPE &amp; REEL</b>	330	4,000	370 x 370 x 420	20,000	12.0
<b>TAPE &amp; BOX</b>	255 x 75 x 150	3,000	400 x 273 x 415	30,000	15.0
<b>BULK</b>	200 x 85 x 25	1,000	459 x 214 x 256	40,000	17.5