

Maximum Ratings and Electrical Characteristics (@T_A = +25°C unless otherwise specified.)

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

For capacitive load, derate current by 20%.

Characteristic	Symbol	SF2DDF	SF2GDF	SF2JDF	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	200	400	600	V
Working Peak Reverse Voltage	V _{RWM}				
DC Blocking Voltage	V _R				
Average Rectified Output Current @ T _T = +88°C (Note 5)	I _O	2.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	50			A
Maximum Instantaneous Forward Voltage @ I _F = 2A	V _F	1.1	1.3	1.7	V
Maximum DC Reverse Current @ T _A = +25°C	I _R	5			μA
at Rated DC Blocking Voltage @ T _A = +100°C (Note 7)		100			
Typical Total Capacitance (Note 8)	C _T	50			pF
Maximum Reverse Recovery Time (Note 9)	t _{RR}	35			ns

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Terminal (Note 6)	R _{θJT}	30	°C/W
Typical Thermal Resistance Junction to Ambient (Note 6)	R _{θJA}	56	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

- Notes:
- Device mounted on FR-4 substrate, 1" x 1", 2oz, single-sided, PCBs with 0.1" x 0.15" copper pad.
 - Device mounted on FR-4 substrate, 0.4" x 0.5", 2oz, single-sided, PCBs with 0.2" x 0.25" copper pad.
 - Short duration pulse test used to minimize self-heating effect.
 - Measured at 1.0MHZ and applied reverse voltage of 4.0V DC.
 - Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A.

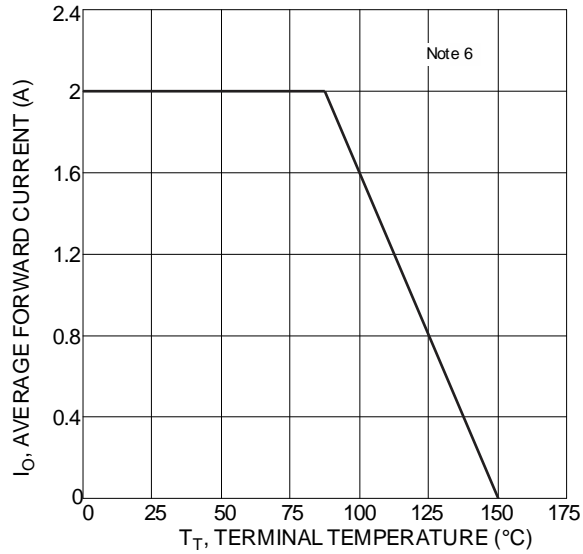


Fig. 1 Forward Current Derating Curve

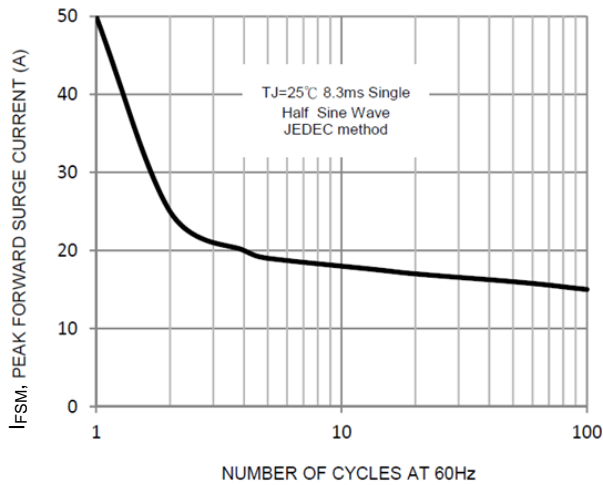


Fig. 3. Maximum Non-Repetitive Forward Surge

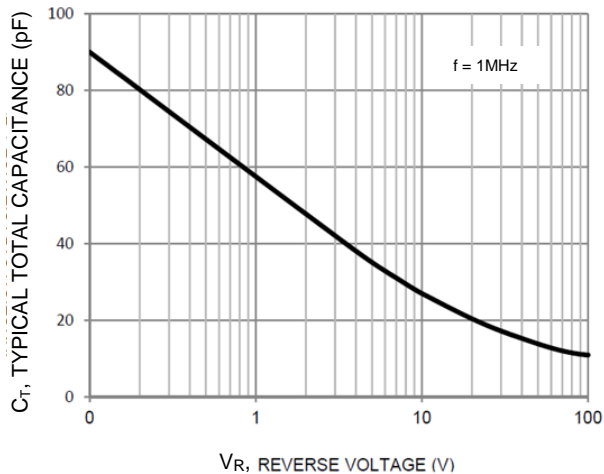


Fig 5. Typical Total Capacitance

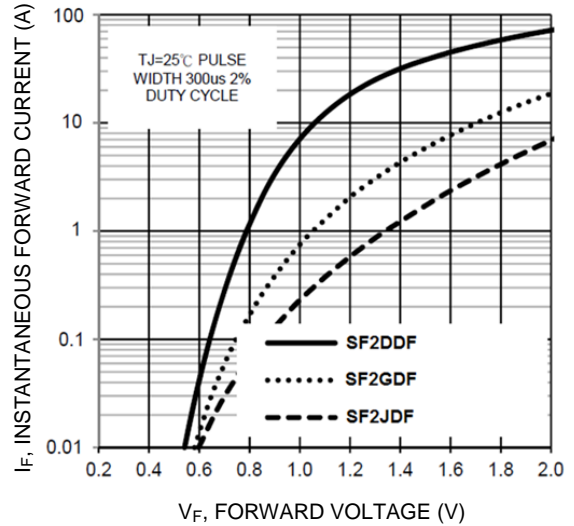


Fig 2. Typical Forward Characteristics

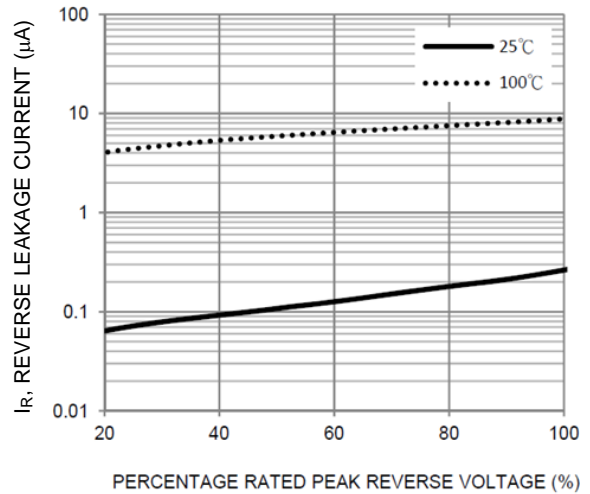


Fig 4. Typical Reverse Characteristics

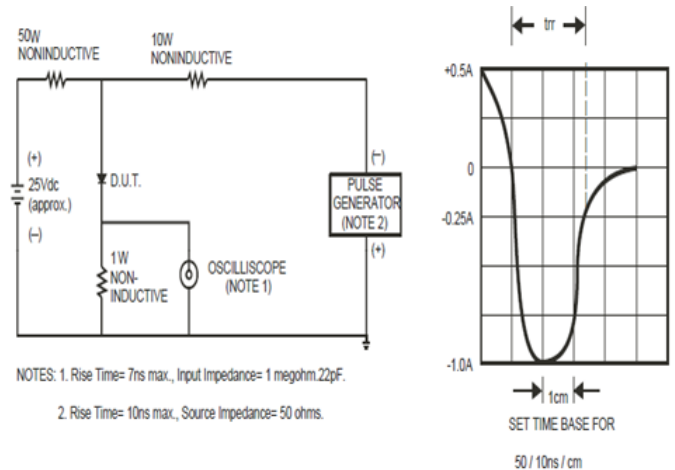
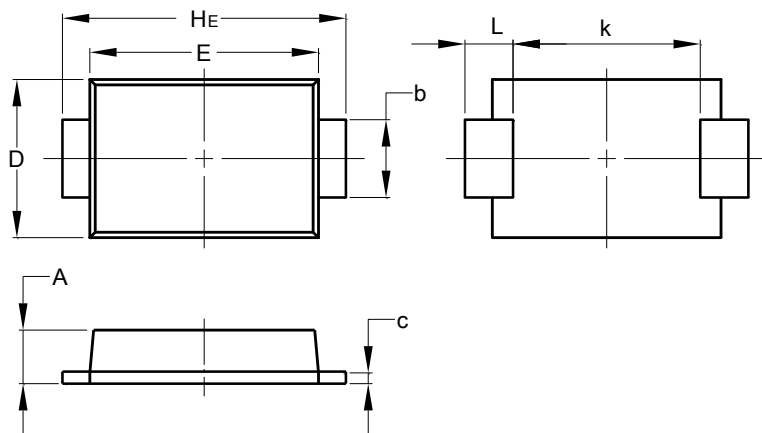


Fig 6. Reverse Recovery Time Characteristic and Test Circuit

Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

D-FLAT

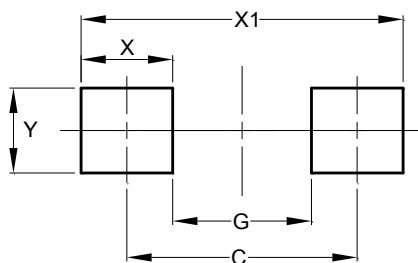


D-FLAT		
Dim	Min	Max
A	0.90	1.10
b	1.25	1.65
c	0.10	0.40
D	2.25	2.95
E	3.95	4.60
k	2.80	-
H_E	5.00	5.60
L	0.50	1.30
All Dimensions in mm		

Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

D-FLAT



Dimensions	Value (in mm)
C	4.65
G	2.80
X	1.85
X1	6.50
Y	1.70

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