

Maximum Ratings (@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	US1JDFQ	US1MDFQ	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	600	1000	V
Working Peak Reverse Voltage	V _{RWM}			
DC Blocking Voltage	V _R			
RMS Reverse Voltage	V _{R(RMS)}	420	700	V
Average Rectified Output Current @T _T = +25°C	I _O	1.0		A
Non-Repetitive Peak Forward Surge Current 8.3ms	I _{FSM}	30		A
Single Half Sine-Wave Superimposed on Rated Load				

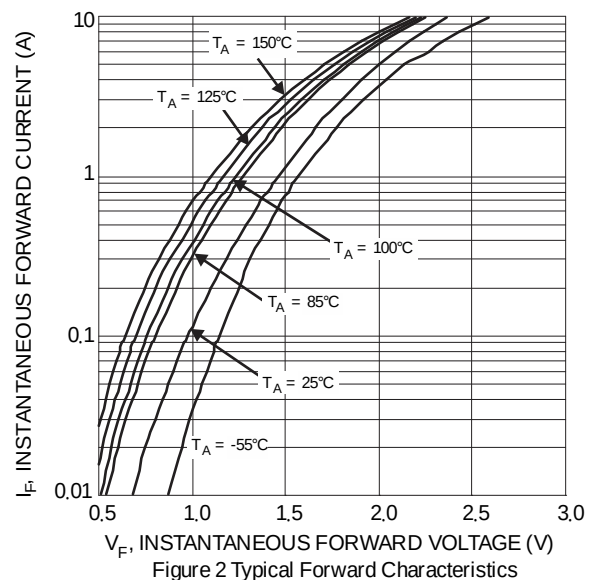
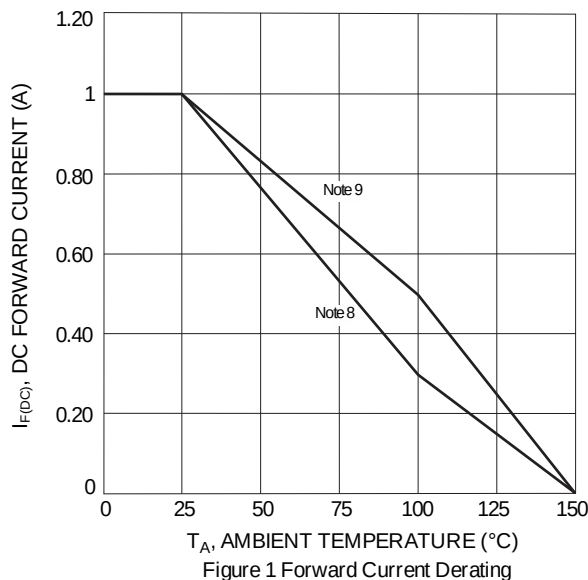
Thermal Characteristics

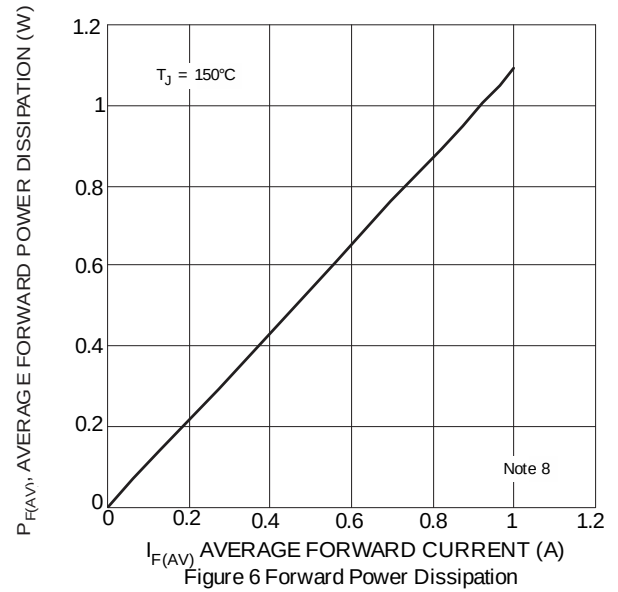
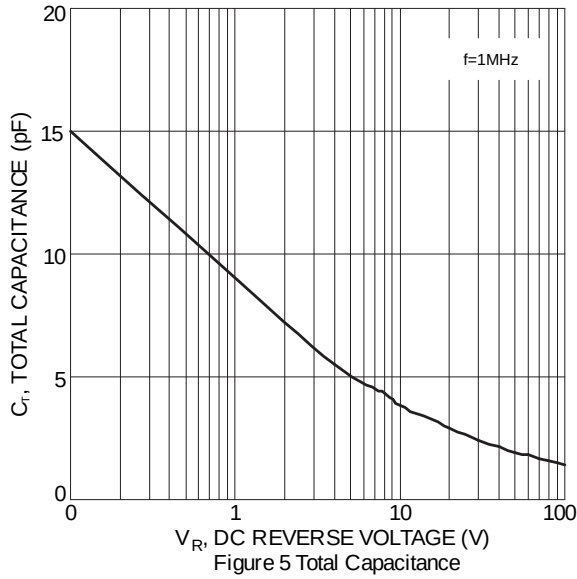
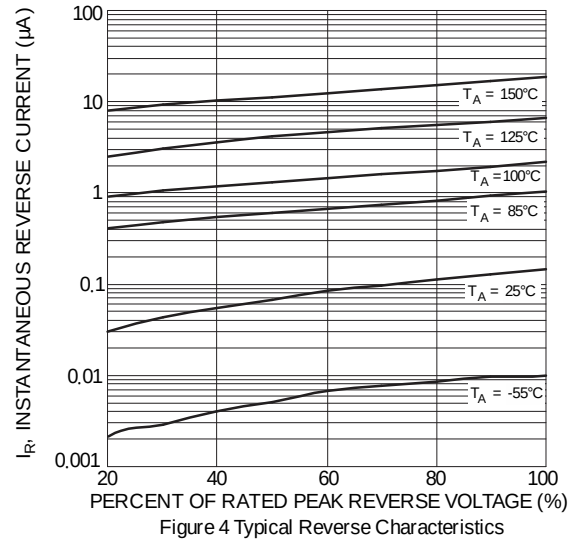
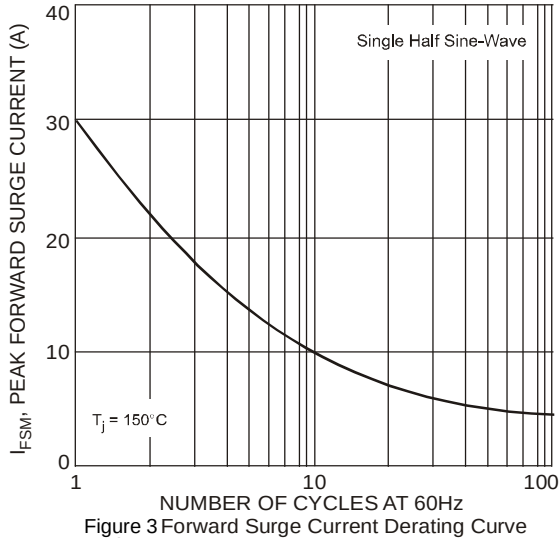
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Terminal (Note 8)	R _{θJT}	44	°C/W
Typical Thermal Resistance, Junction to Ambient (Note 8)	R _{θJA}	80	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

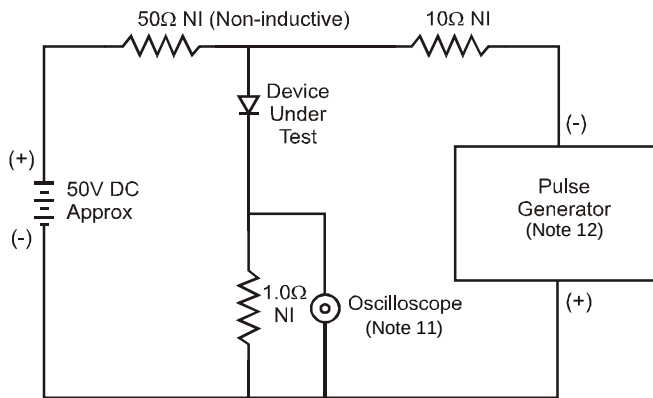
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	US1JDFQ	US1MDFQ	Unit
Minimum Reverse Breakdown Voltage (Note 6) @I _R = 5μA	V _{(BR)R}	600	1000	V
Maximum Forward Voltage Drop @I _F = 1.0A	V _F	1.7		V
Peak Reverse Current @T _A = +25°C	I _R	5.0		μA
at Rated DC Blocking Voltage (Note 6) @T _A = +100°C		100		
Maximum Reverse Recovery Time (Note 7)	t _{RR}	75		ns
Typical Total Capacitance (Note 10)	C _T	10		pF

- Notes:
6. Short duration pulse test used to minimize self-heating effect.
 7. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A. See Figure 7.
 8. Device mounted on FR-4 substrate, 1" * 1", 2oz, single-sided, PC boards with 0.1" * 0.15" copper pads.
 9. Device mounted on FR-4 substrate, 0.4" * 0.5", 2oz, single-sided, PC boards with 0.2" * 0.25" copper pads.
 10. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



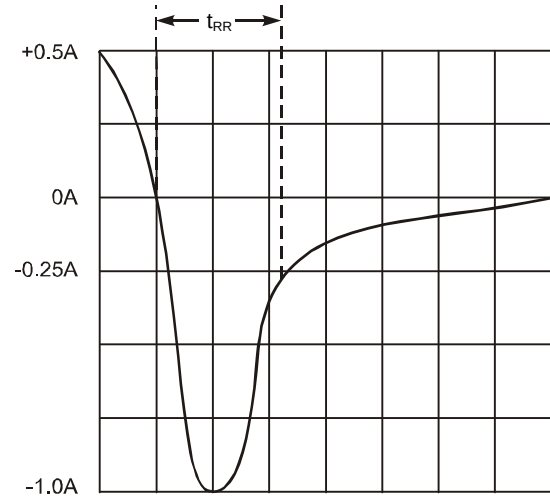




Notes:

11. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.

12. Rise Time = 10ns max. Input Impedance = 50Ω.



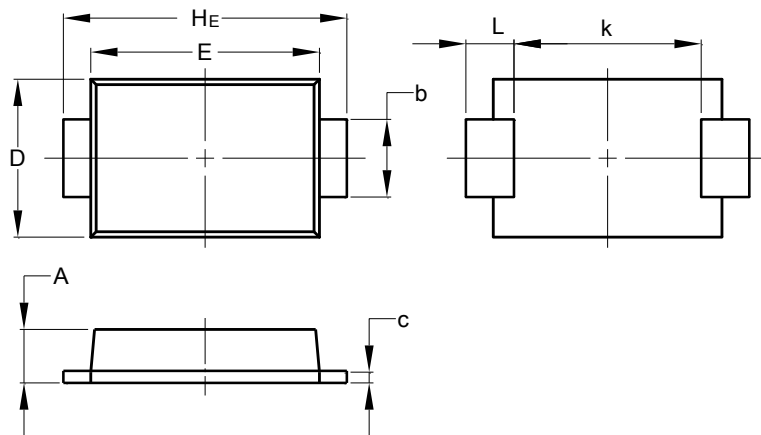
Set time base for 50/100 ns/cm

Figure 7 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

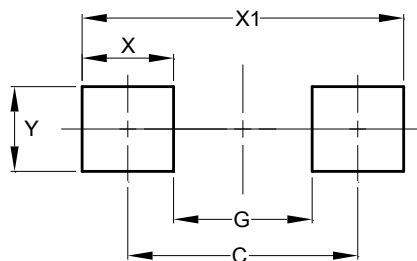


D-FLAT		
Dim	Min	Max
A	0.90	1.10
b	1.25	1.65
c	0.10	0.40
D	2.25	2.95
E	3.95	4.60
k	2.80	-
H _E	5.00	5.60
L	0.50	1.30
All Dimensions in mm		

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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