
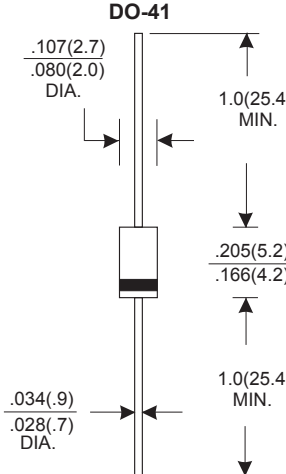


1.0 AMP SUPER FAST RECTIFIERS

 <h3>FEATURES</h3> <ul style="list-style-type: none"> * Low forward voltage drop * High current capability * High reliability * High surge current capability <h3>MECHANICAL DATA</h3> <ul style="list-style-type: none"> * Case: Molded plastic * Epoxy: UL 94V-0 rate flame retardant * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed * Polarity: Color band denotes cathode end * Mounting position: Any * Weight: 0.34 grams 	<h3>VOLTAGE RANGE</h3> <p>50 to 600 Volts</p> <h3>CURRENT</h3> <p>1.0 Ampere</p> <div style="text-align: center;">  <p>DO-41</p> <p>Dimensions in inches and (millimeters)</p> </div>
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

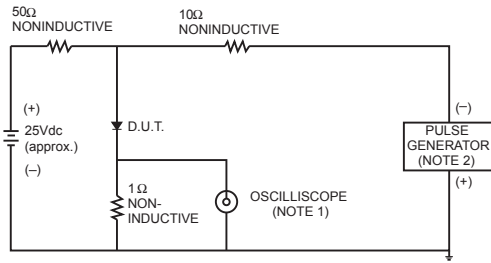
TYPE NUMBER	SF11	SF12	SF13	SF14	SF15	SF16	SF18	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55°C	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	0.95				1.25	1.70		V
Maximum DC Reverse Current Ta=25°C	5.0							µA
at Rated DC Blocking Voltage Ta=100°C	50							µA
Maximum Reverse Recovery Time (Note 1)	35							nS
Typical Junction Capacitance (Note 2)	50							pF
Operating and Storage Temperature Range T _J , T _{STG}	-65 — +150							°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (SF11 THRU SF18)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

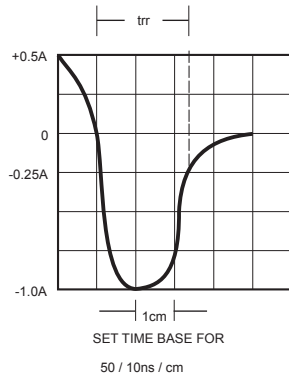


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

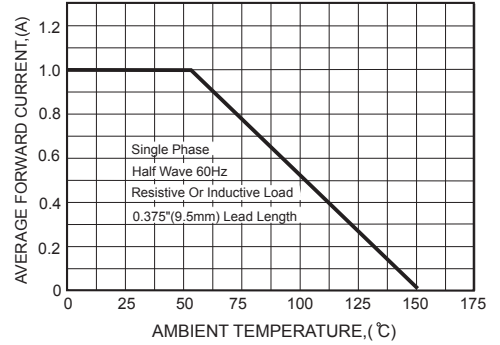


FIG.3-TYPICAL FORWARD CHARACTERISTICS

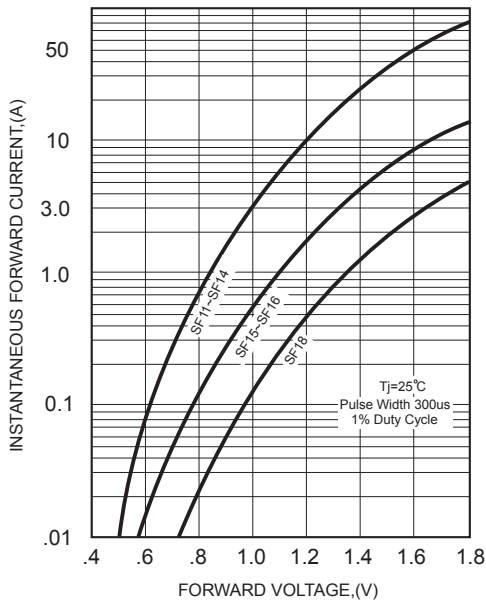


FIG.4-TYPICAL REVERSE CHARACTERISTICS

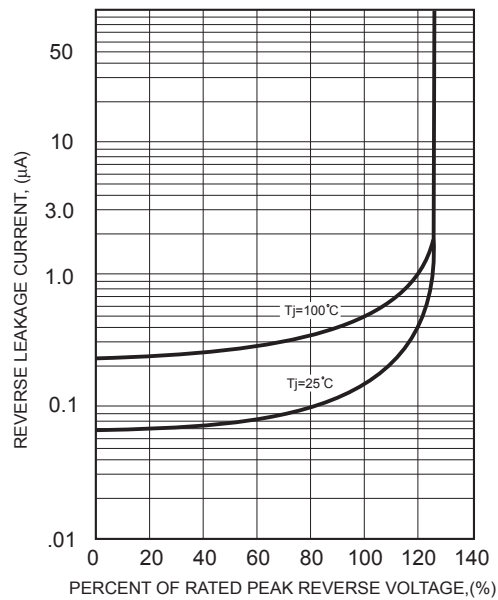


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

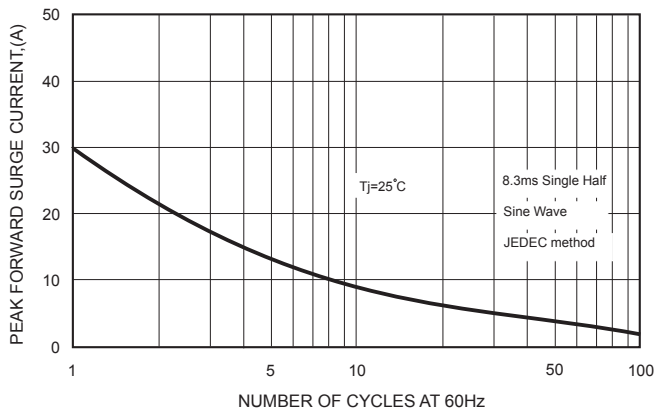


FIG.6-TYPICAL JUNCTION CAPACITANCE

