

SF11 THRU SF17

SUPER FAST RECOVERY SILICON RECTIFIER

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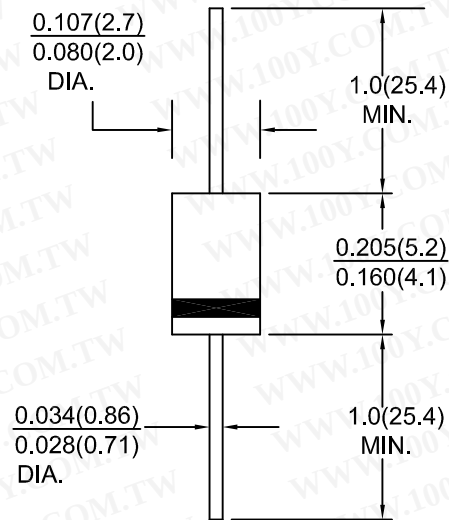
FEATURES:

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

MECHANICAL DATA

Case : Molded plastic
Epoxy: UL 94V-0 rate flame retardant
Lead : Axial leads solderable per MIL-STD-202
Method 2028 guaranteed
Polarity : Color band denotes cathode end
Mounting Postition: Any
Mounting Torque 5 In - lbs.max
Weight : 0.34 grams

DO-204AL/DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristic	Symbol	SF 11	SF 12	SF 13	SF 14	SF 15	SF 16	SF 17	Units	
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	Volts	
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	Volts	
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	Volts	
Maximum average forward rectified current .375"(9.5mm) lead length at Ta=55°C	I _(AV)	1.0							Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							Amps	
Maximum instantaneous forward voltage IF= 1.0A	V _F	0.95				1.25		1.70	Volts	
Maximum DC reverse current Ta=25°C at rated DC blocking voltage Ta=100°C	I _R	5.0 100								uA
Maximum reverse recovery time(NOTE 1)	T _{RR}	35								ns
Typical Junction Capacitance(NOTE 2)	C _J	50								Pf
Operating temperature range	T _J	-65to+150								°C
Storage temperature range	T _{Stg}	-65to+175								°C

NOTES :

- 1.Reverse recovery test condition : $I_F=0.5A$; $I_R=1.0A$; $IRR=0.25A$
- 2.Measured 1MHZ and applied reverse voltage of 4.0VDC

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

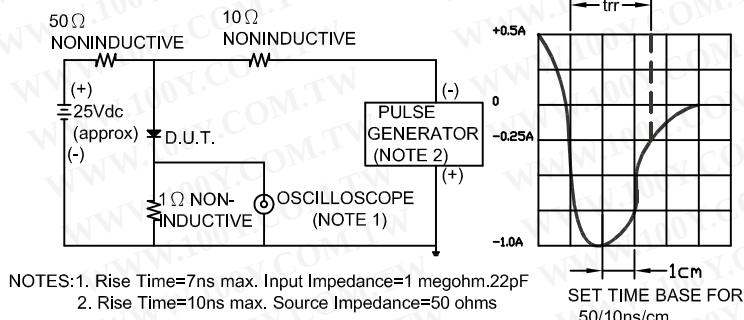


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

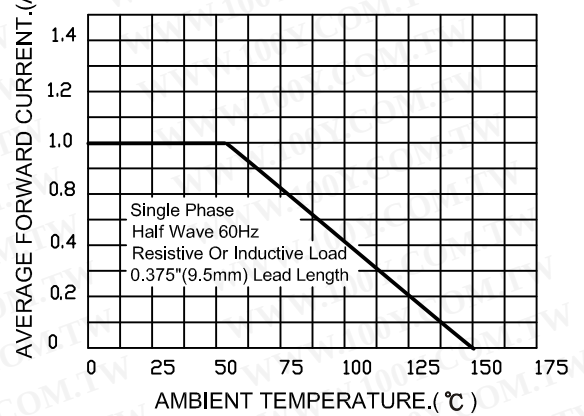


FIG.3-TYPICAL FORWARD CHARACTERISTICS

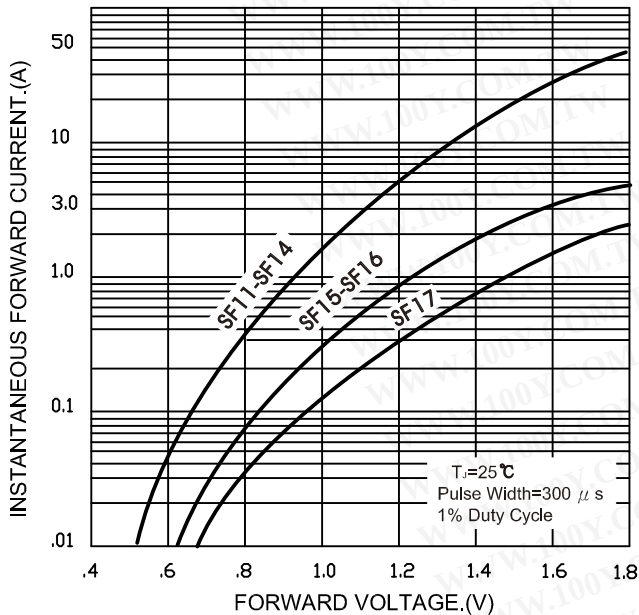


FIG.4-TYPICAL REVERSE CHARACTERISTICS

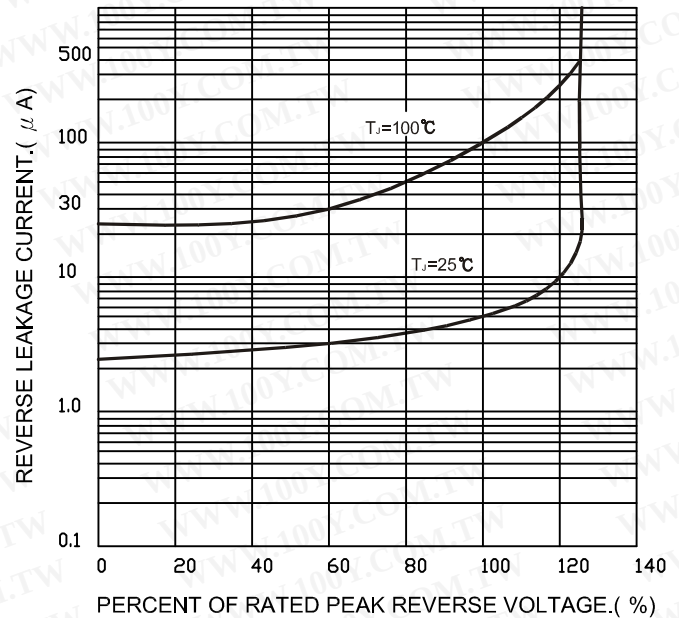


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

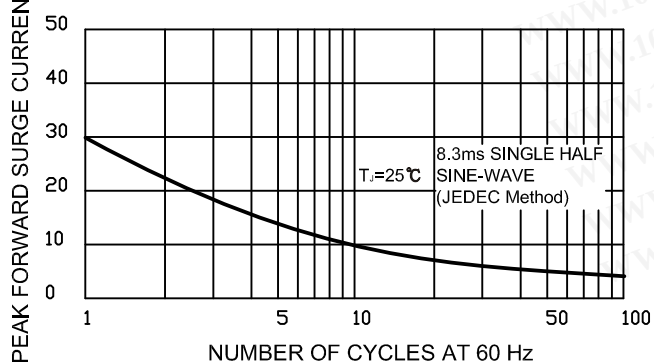


FIG.6-TYPICAL JUNCTION CAPACITANCE

