

FR601 THRU FR607

FAST RECOVERY SILICON RECTIFIERS

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,

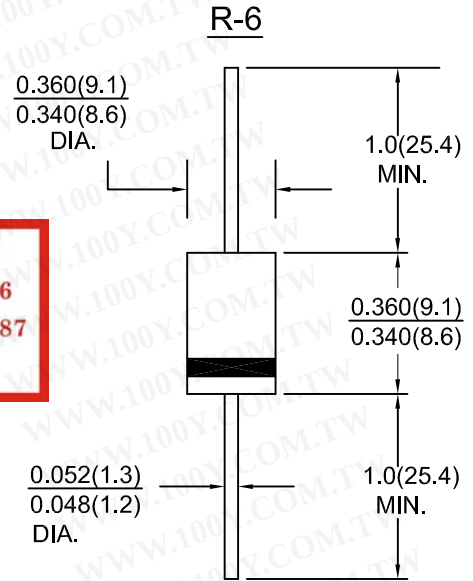
Method 208 guaranteed

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 1.65 grams

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-54151736
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

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

For capacitive load, derate current by 20 %.

Characteristic	Symbol	FR 601	FR 602	FR 603	FR 604	FR 605	FR 606	FR 607	Units
Maximum recurrent peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current .375"(9.5mm) lead length at Ta=75 °C	IO	6.0							Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	IFSM	300.0							Amps
Maximum instantaneous forward voltage drop at 6.0 A	VF	1.30							Volts
Maximum DC reverse current Ta=25 °C at rated DC blocking voltage Ta=100 °C	IR	10.0 200.0							μ A
Maximum reverse recovery time (note 1)	trr	150				250	500		nS
Typical junction capacitance (note 2)	Cj	100							pF
Operating junction and storage temperature range	Tj, Tstg	-65 to +125			-65 to +150				°C

NOTES:1. Reverse recovery test condition; I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

2. Measured at 1MHz and Applied reverse voltage of 4.0V_{DC}

RATINGS AND CHARACTERISTIC CURVES FR601 THRU FR607

FIG.1-TYPICAL FORWARD CHARACTERISTICS

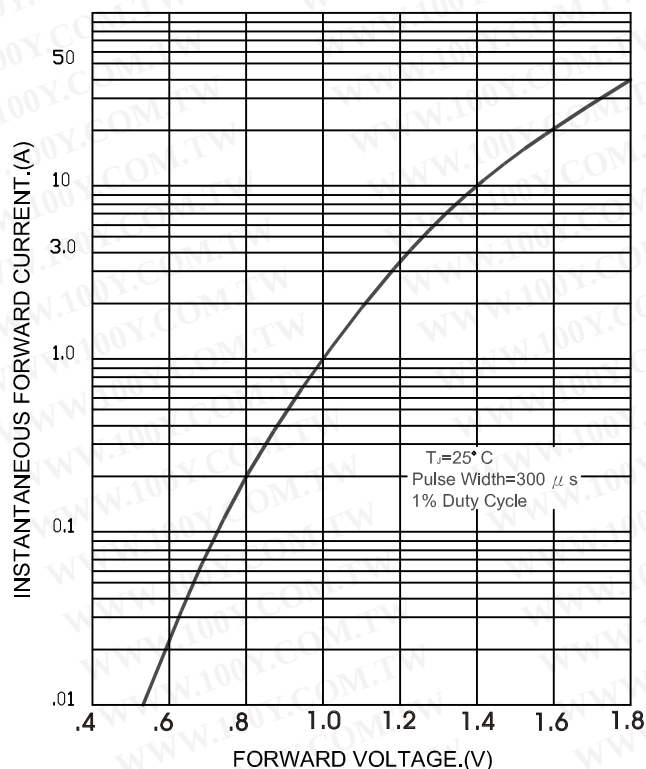


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

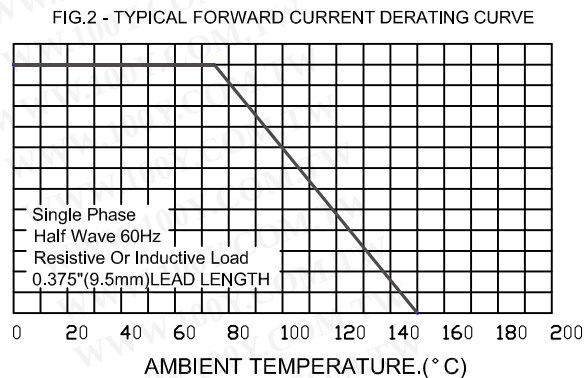
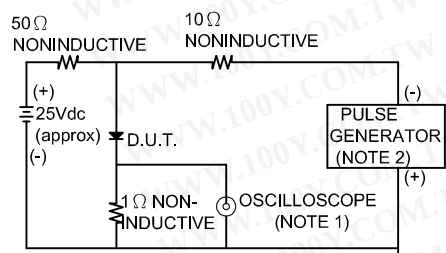


FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

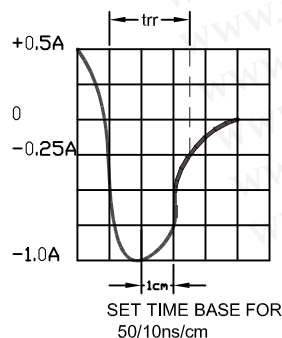


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

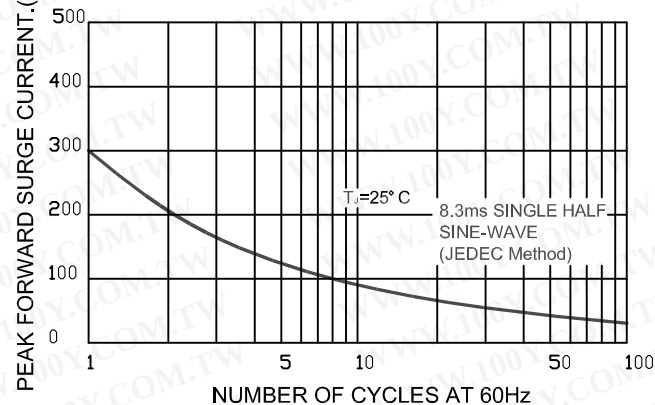


FIG.5-TYPICAL JUNCTION CAPACITANCE

