

1N4942 THRU 1N4948

FAST RECOVERY SILICON RECTIFIERS

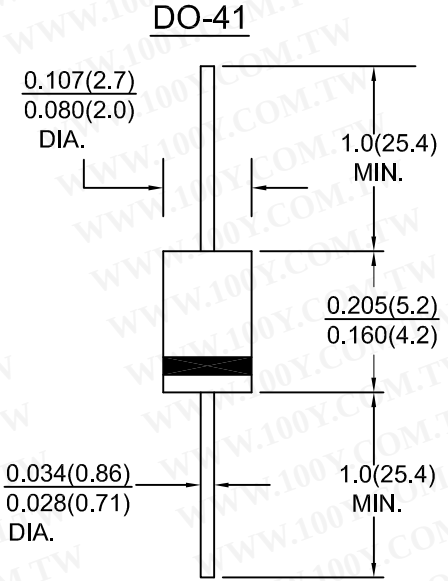
FEATURES:

- Low forward voltage drop
- Low leakage current
- High reliability
- High current capability junction

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)

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 denotes cathode end
Mounting Position : Any
Weight : 0.34 grams



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	1N4942	1N4944	1N4946	1N4947	1N4948	Units
Maximum recurrent peak reverse voltage	VRRM	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	200	400	600	800	1000	Volts
Maximum average forward rectified current .375"(9.5mm) lead length at Ta=75 °C	Io	1.0					Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	IFSM	30.0					Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.30					Volts
Maximum DC reverse current Ta=25 °C at rated DC blocking voltage Ta=100 °C	IR	5.0 100.0					μ A
Maximum reverse recovery time (note 1)	trr	150		250		500	nS
Typical junction capacitance (note 2)	Cj	15					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 1N4942 THRU 1N4948

FIG.1-TYPICAL FORWARD CHARACTERISTICS

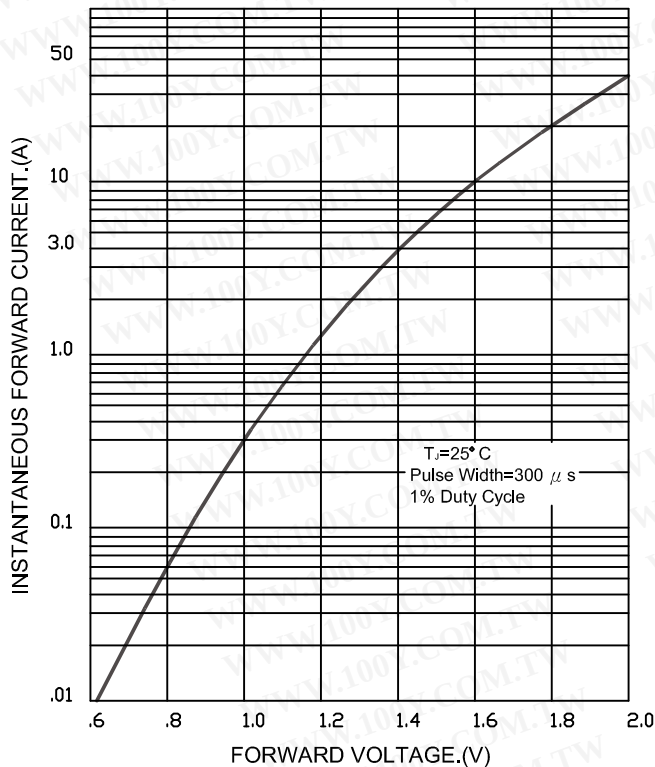


FIG.2 - TYPICAL FORWARD CURRENT DERATING CURVE

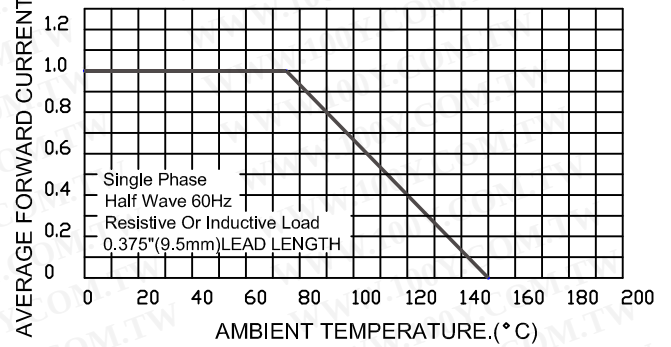
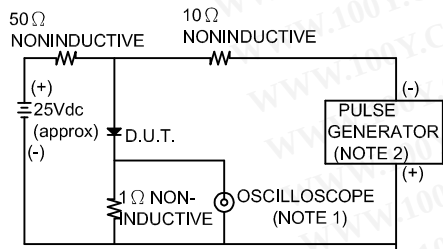


FIG.3-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

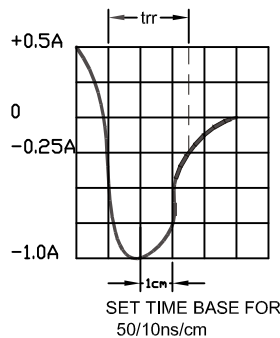


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

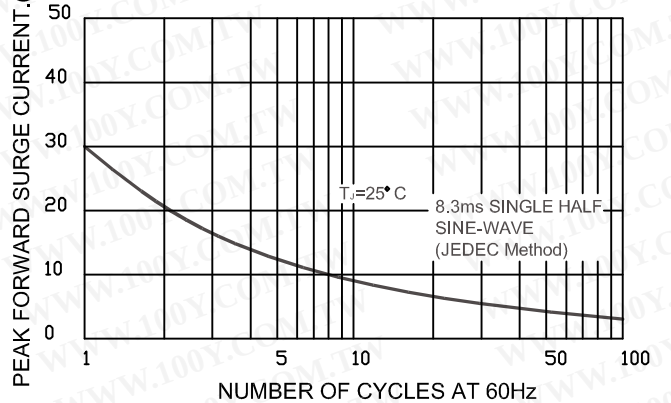


FIG.5-TYPICAL JUNCTION CAPACITANCE

