

FR301 THRU FR307

FAST RECOVERY SILICON RECTIFIERS

FEATURES:

- Low cost
- High surge current capability
- Low leakage current
- Low forward voltage drop
- Diffused 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 use UL 94V-0 recognized flame retardant epoxy

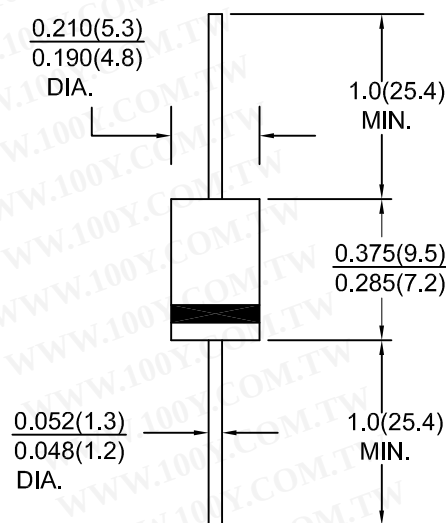
Terminals : Axial leads, solderable per MIL-STD-202 Method 208 guaranteed

Polarity : Color band on body denotes cathode

Mounting Position : Any

Weight : 1.1 grams, 0.039 ounce

DO-201AD



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 301	FR 302	FR 303	FR 304	FR 305	FR 306	FR 307	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 at Ta=55° C	Io	3.0							Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	IFSM	150.0							Amps
Maximum instantaneous forward voltage drop at 3.0 A	VF	1.30							Volts
Maximum DC reverse current Ta=25° C Ta=55° C	IR	5.0 30.0							μ A
Typical reverse recovery time (note 1)	trr	150	150	150	150	250	500	500	nS
Typical junction capacitance (note 2)	Cj	60							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 FR301 THRU FR307

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

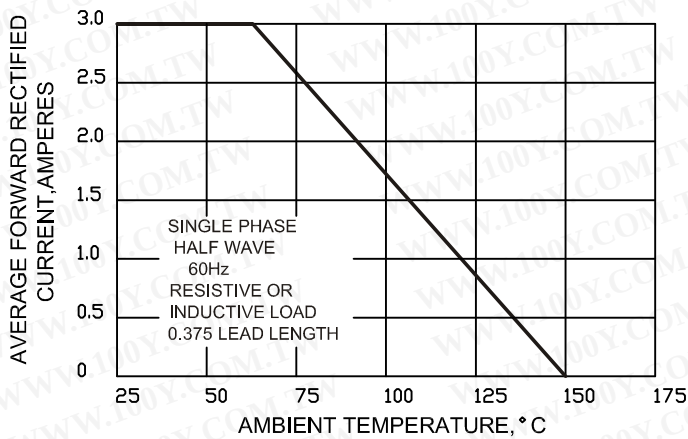


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

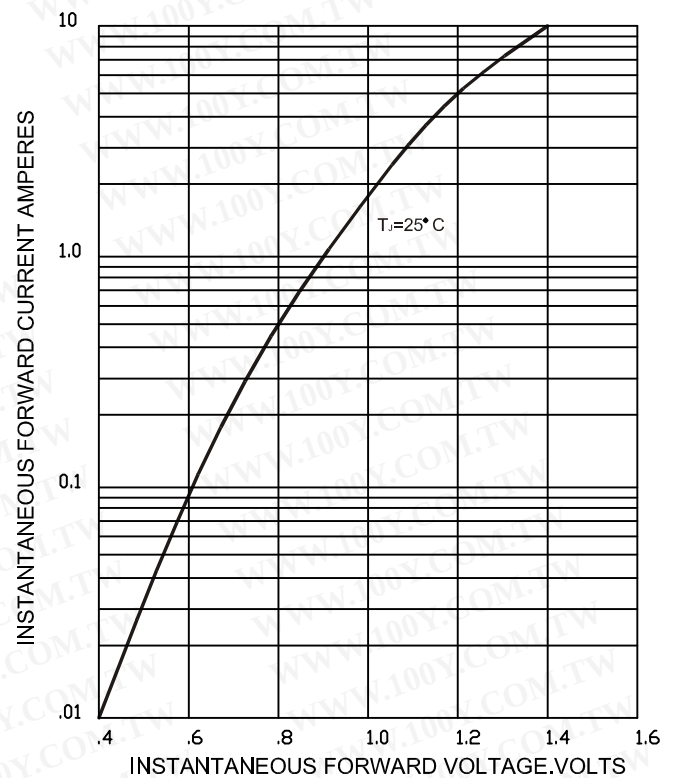


FIG.3-TYPICAL JUNCTION CAPACITANCE

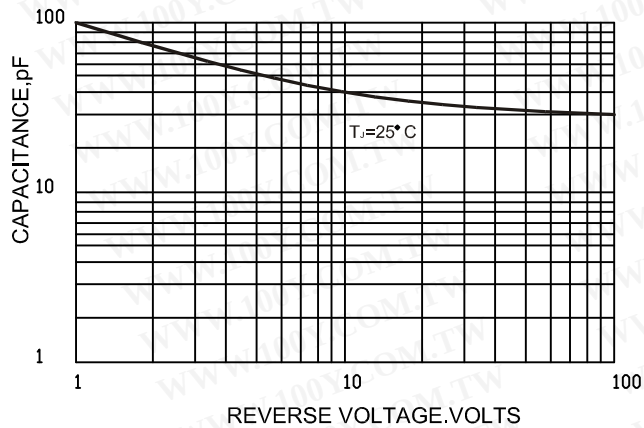


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

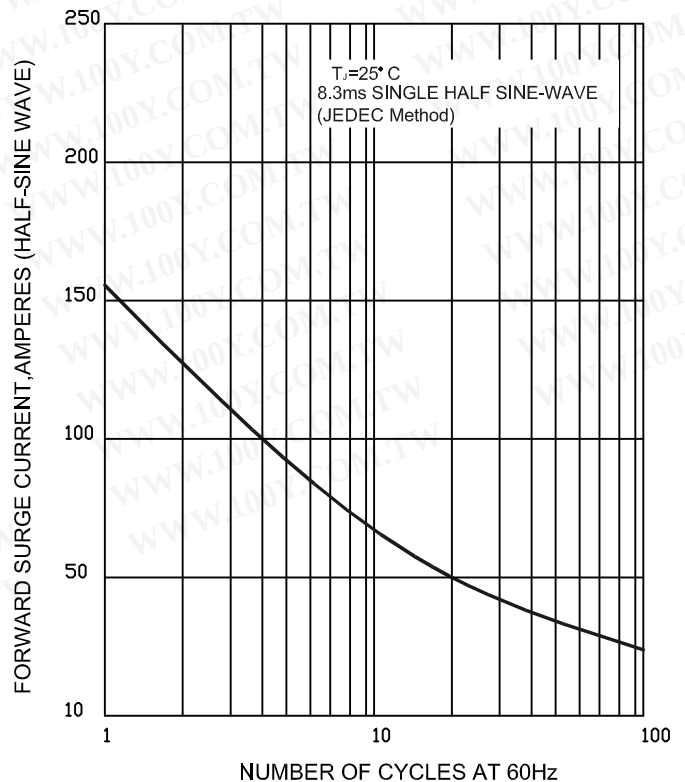


FIG.5-REVERSE RECOVERY TIME CHARACTERISTICS

