



**FAST RECOVERY SILICON RECTIFIERS**

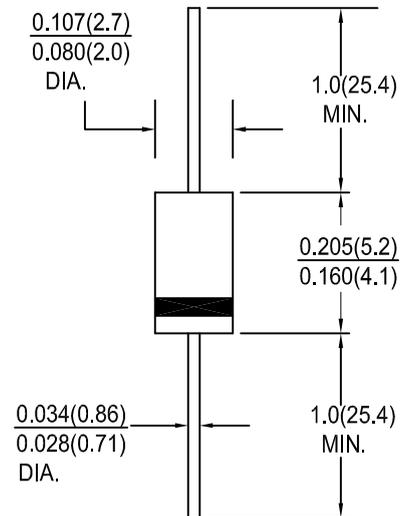
**FEATURES:**

- Low cost
- High surge current capability
- Low leakage current
- Diffused junction

**MECHANICAL DATA**

Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy  
 Terminals : Axial leads, solderable per MIL-STD-202, Method 208  
 Polarity : Color band on body denotes cathode  
 Mounting Position : Any  
 Weight : 0.33 grams

DO-204AL(DO-41)



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 101	FR 102	FR 103	FR 104	FR 105	FR 106	FR 107	Units	
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts	
Maximum average forward rectified current at TA=55° C	I <sub>O</sub>	1.0							Amps	
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I <sub>FSM</sub>	30.0							Amps	
Maximum instantaneous forward voltage drop at 1.0 A	V <sub>F</sub>	1.30							Volts	
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	5.0 30.0							μA	
Typical reverse recovery time (note 1)	t <sub>rr</sub>	150	150	150	150	250	500	500	nS	
Typical junction capacitance (note 2)	C <sub>j</sub>	15							pF	
Operating junction and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-65 to +125				-65 to +150				°C

NOTES:1. Reverse recovery test condition; I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A  
 2. Measured at 1MHz and Applied reverse voltage of 4.0V<sub>DC</sub>



RATINGS AND CHARACTERISTIC CURVES

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

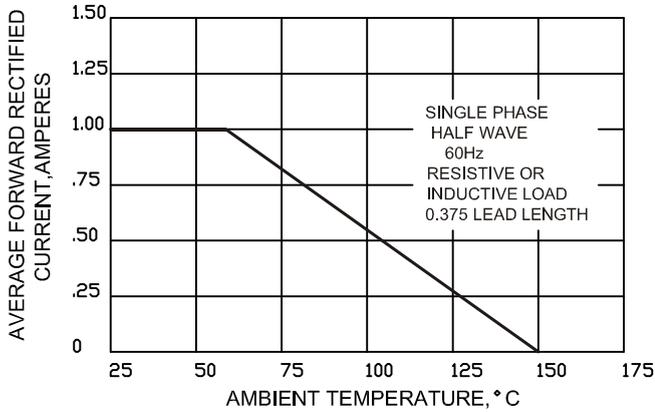


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

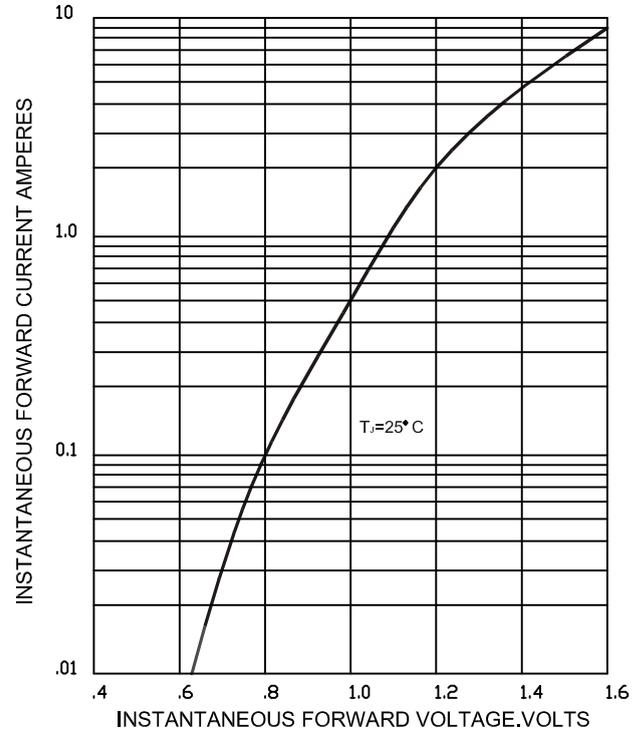


FIG.3-TYPICAL JUNCTION CAPACITANCE

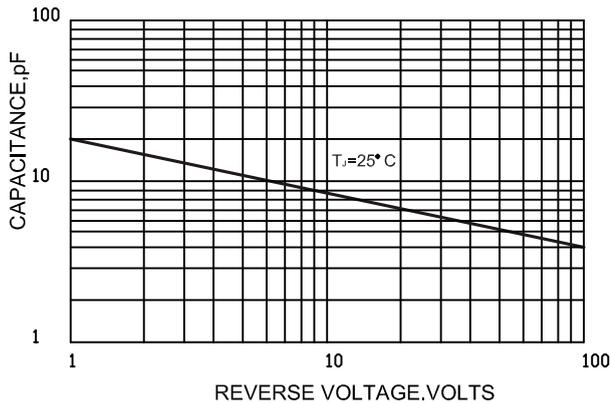


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

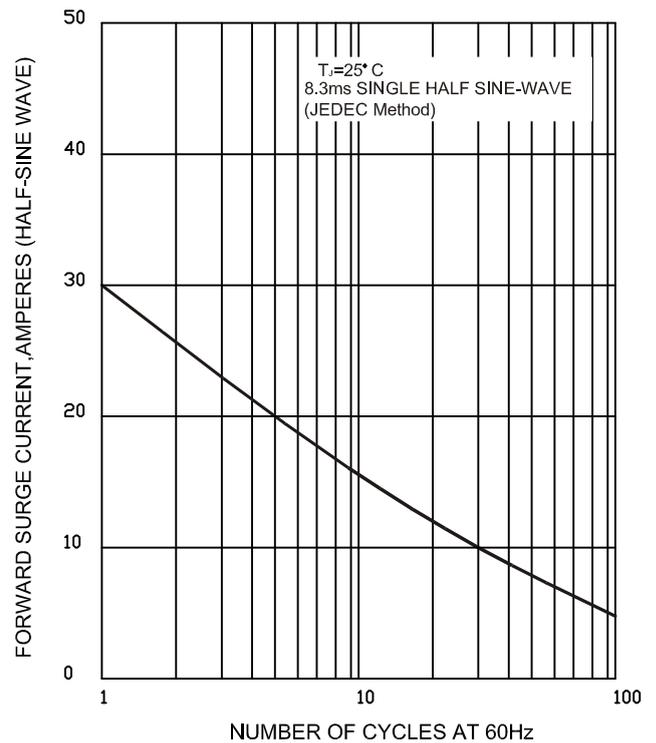
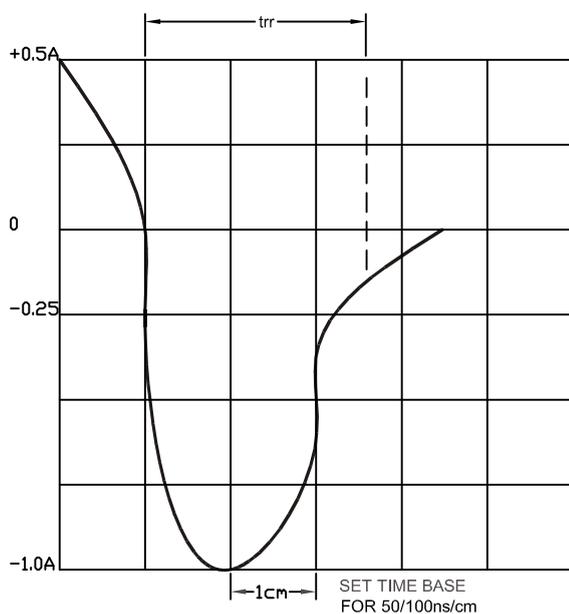


FIG.5-REVERSE RECOVERY TIME CHARACTERISTICS





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