

FEATURES:

- Low cost
- High surge current capability
- Low leakage current
- Low forward voltage drop
- Diffused junction

MECHANICAL DATA

Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy

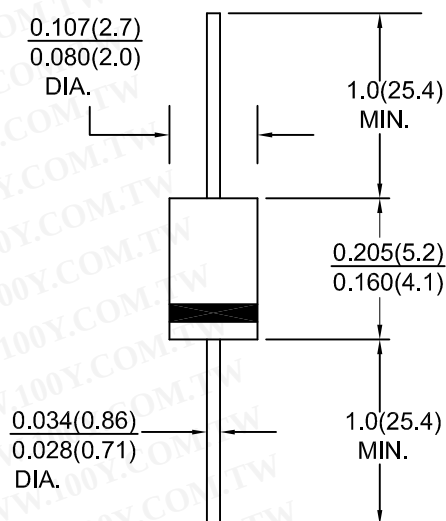
Terminals : Axial leads, solderable per MIL-STD-202F, Method 208

Polarity : Color band on body denotes cathode

Mounting Position : Any

Weight : 0.35 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 151S	FR 152S	FR 153S	FR 154S	FR 155S	FR 156S	FR 157S	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_a=55^\circ\text{C}$	I_O	1.5							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	50.0							Amps
Maximum instantaneous forward voltage drop at 1.5 A	V_F	1.30							Volts
Maximum DC reverse current $T_a=25^\circ\text{C}$ $T_a=55^\circ\text{C}$	I_R	5.0 30.0							μA
Typical reverse recovery time (note 1)	t_{rr}	150	150	150	150	250	500	500	nS
Typical junction capacitance (note 2)	C_j	20							pF
Operating junction and storage temperature range	T_j, T_{stg}	-65 to +125				-65 to +150			$^\circ\text{C}$

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

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

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RATINGS AND CHARACTERISTIC CURVES FR151S THRU FR157S

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

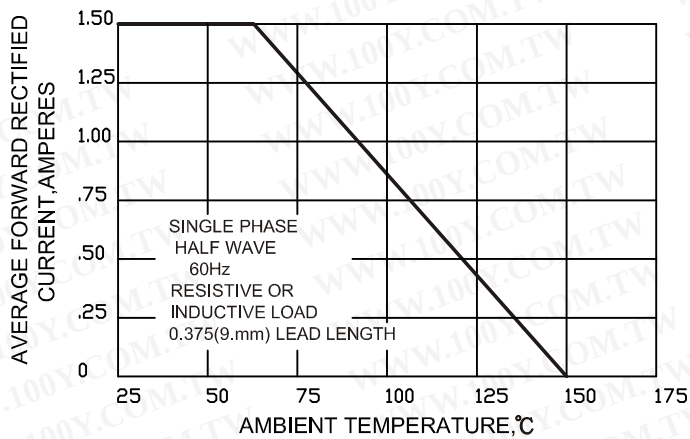


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

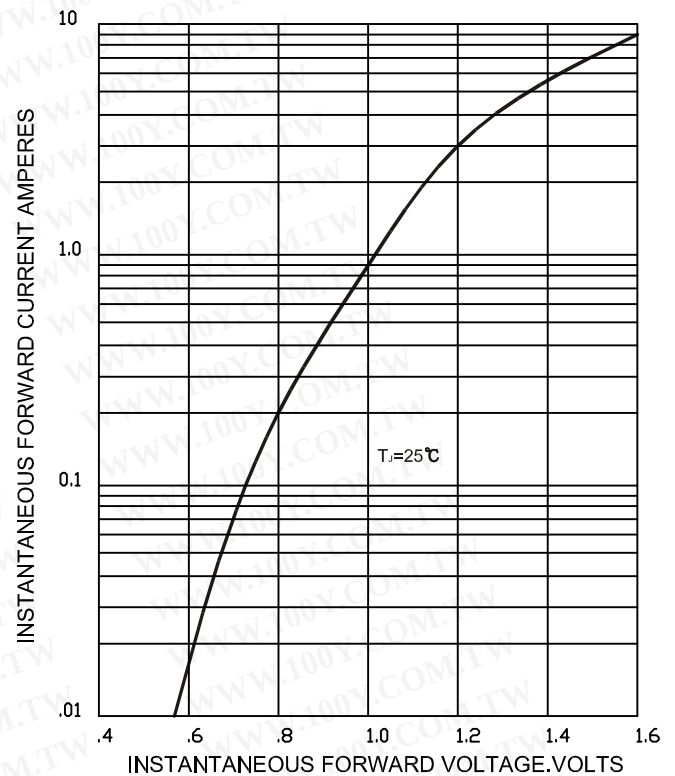


FIG.3-TYPICAL JUNCTION CAPACITANCE

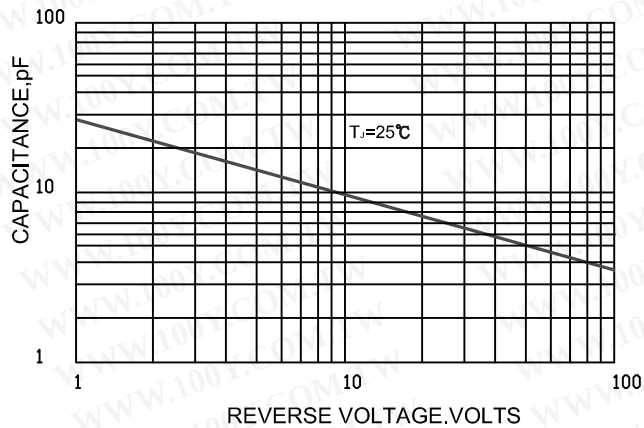


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

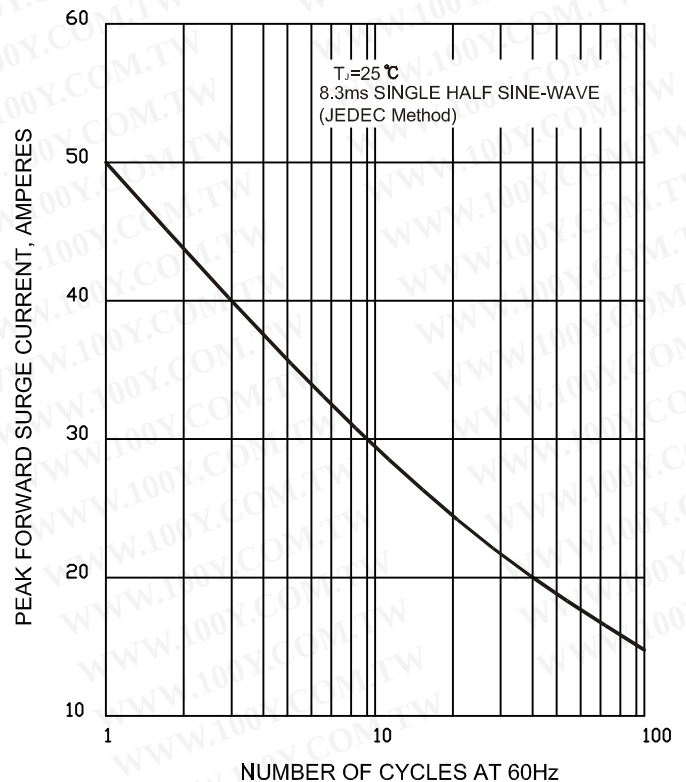


FIG.5-REVERSE RECOVERY TIME CHARACTERISTICS

