



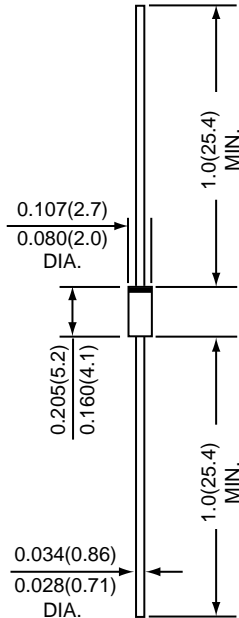
# FR101 THRU FR107

## FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

DO-204AL



\*Dimensions in inches and (millimeters)



### FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge capability
- \* High reliability

### MECHANICAL DATA

**Case :** JEDEC DO-204AL molded plastic

**Terminals :** Plated axial leads , solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Mounting Position :** Any

**Weight :** 0.012 ounces , 0.3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Maximum repetitive 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 0.375" (9.5mm) lead length at TL=75°C	I(AV)	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.3							Volts
Maximum Full Load Reverse Current Full Cycle average, 0.375" (9.5mm) lead length at TL=55°C	IR(AV)	100							uA
Maximum DC reverse current at rated DC blocking voltage TA=25°C	IR	5.0							uA
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 +150							°C

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A  
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

# RATINGS AND CHARACTERISTIC CURVES FR101 THRU FR107

FIG.1 - FORWARD CURRENT DERATING CURVE

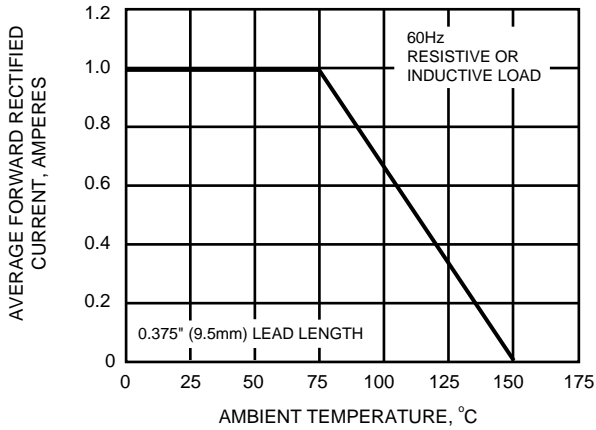


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

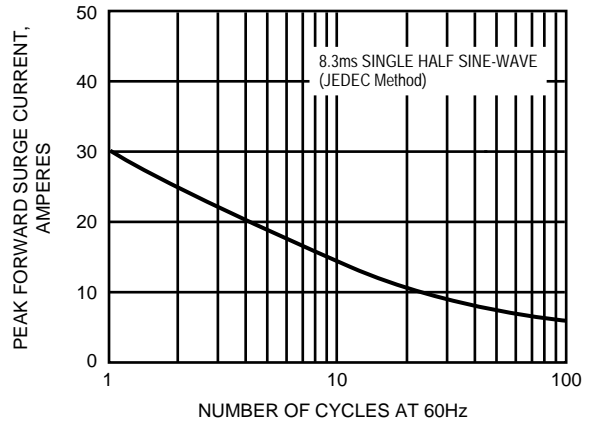


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

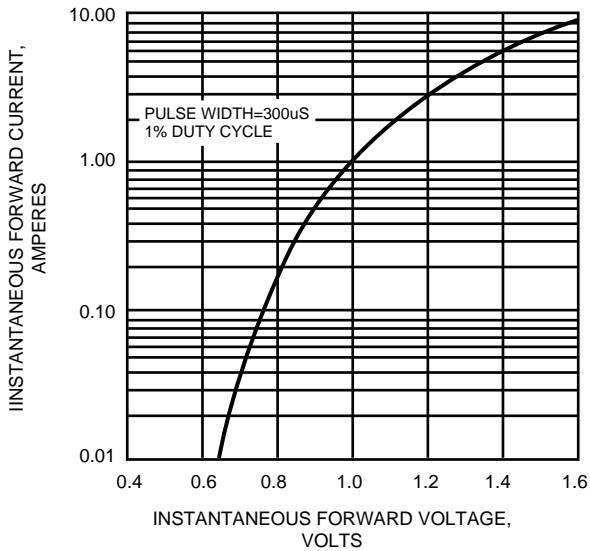


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

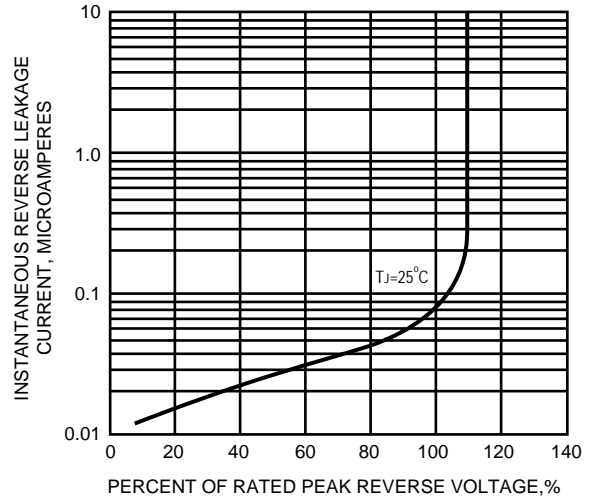


FIG.5 - TYPICAL JUNCTION CAPACITANCE

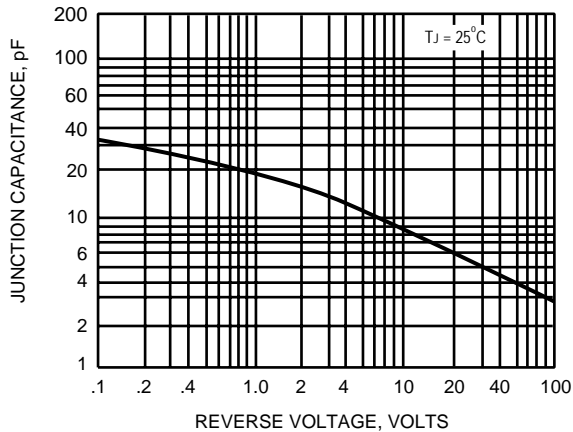


FIG.6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

