



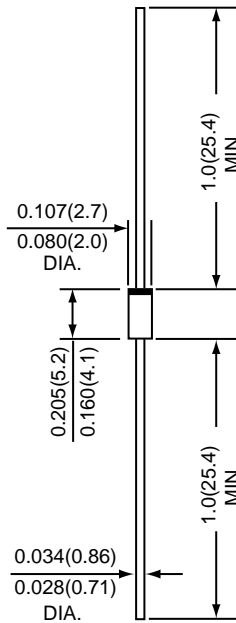
# 1N4942 THRU 1N4948

## FAST RECOVERY RECTIFIER

Reverse Voltage - 200 to 1000 Volts

Forward Current - 1.0 Ampere

DO-204AL



\*Dimensions in inches and (millimeters)



### FEATURES

- \* High switching capability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High surge current capability

### MECHANICAL DATA

**Case :** JEDEC DO-204AL molded plastic  
**Epoxy :** UL 94V-O rate flame retardant  
**Lead :** MIL-STD-202F method 208C guaranteed  
**Mounting Position :** Any  
**Weight :** 0.33 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	1N4942	1N4944	1N4946	1N4947	1N4948	UNITS
Maximum repetitive 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 at TA=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
Typical junction capacitance ( NOTE 1 )	CJ	15					pF
Maximum reverse recovery time ( NOTE 2 )	trr	150	250		500		nS
Operating junction and storage temperature range	TJ,TSTG	-65 to +150					°C

NOTES : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts  
 (2) Test conditions : IF 0.5A, IR=1.0A, IRR=0.25A

# RATINGS AND CHARACTERISTIC CURVES 1N4942 THRU 1N4948

FIG.1 - FORWARD CURRENT DERATING CURVE

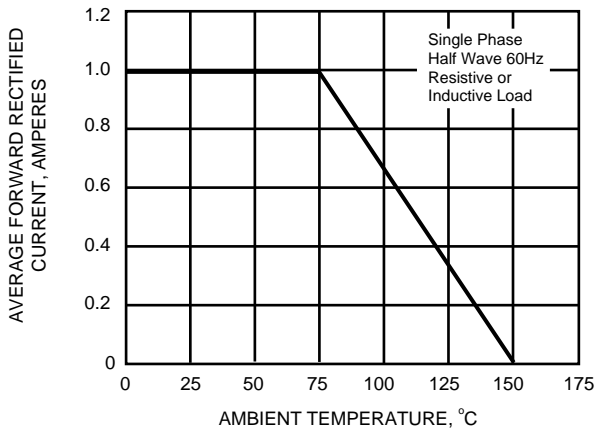


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

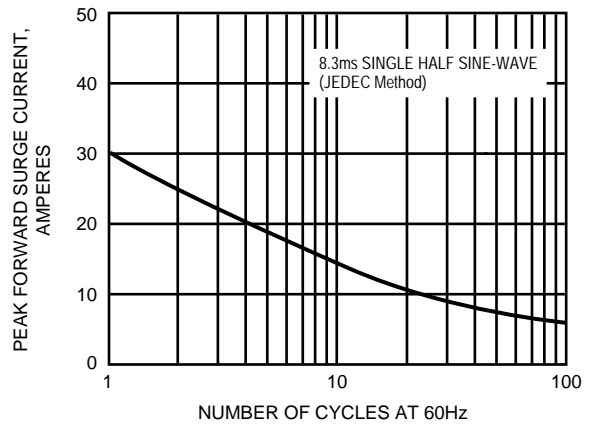


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

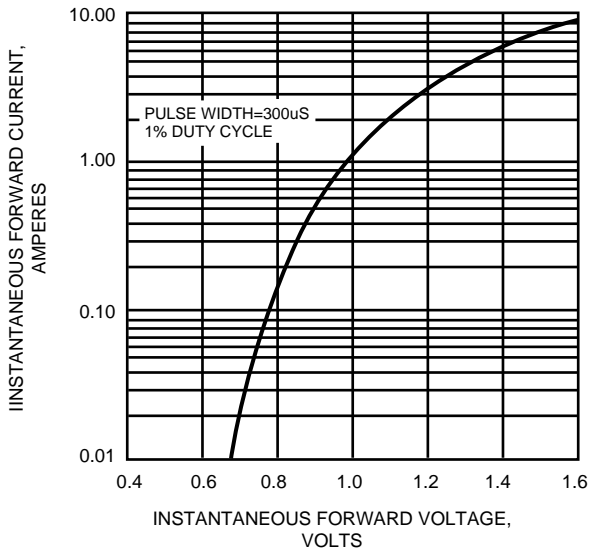


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

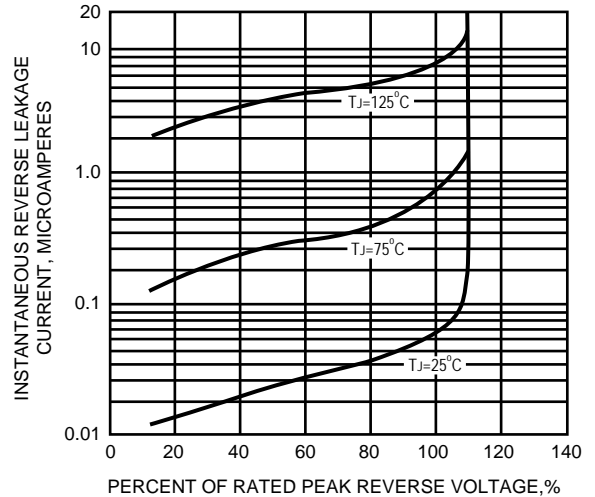


FIG.5 - TYPICAL JUNCTION CAPACITANCE

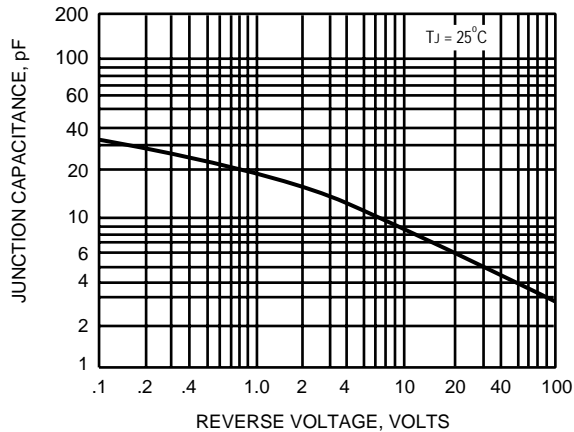


FIG.6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

