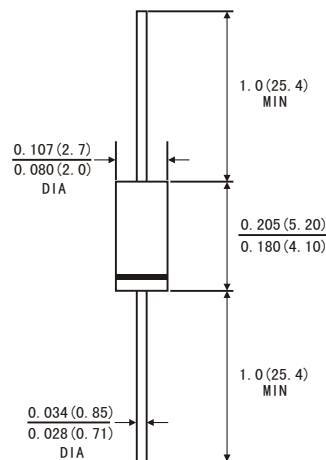


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- High temperature soldering guaranteed: 260°C/10 seconds at terminals,
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



DO-41



MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.012ounce, 0.34 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

	Symbols	1N4942	1N4944	1N4946	1N4947	1N4948	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at T _A =75°C	I(AV)	1.0					Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30.0					Amps
Maximum Instantaneous Forward Voltage at 1.0 A (Note 3)	V _F	1.3					Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	5.0					μA
	T _A =100°C						
Maximum reverse recovery time (Note 1)	t _{rr}	150		250		500	ns
Typical junction capacitance (Note 2)	C _J	15.0					pF
Operating junction and storage temperature range	T _J T _{STG}	-65 to +150					°C

Note: 1. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

RATINGS AND CHARACTERISTIC CURVES 1N4942 THRU 1N4948

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

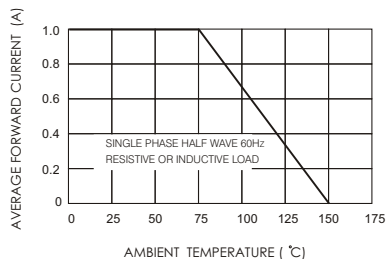


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

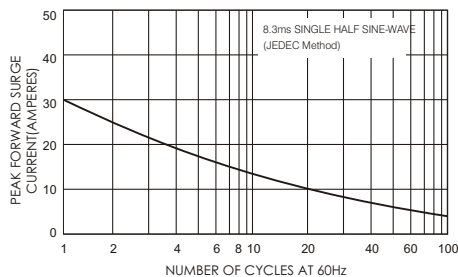


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

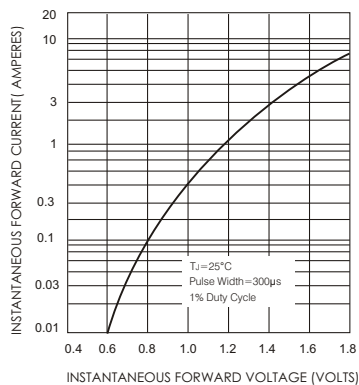


FIG.4-TYPICAL REVERSE CHARACTERISTICS

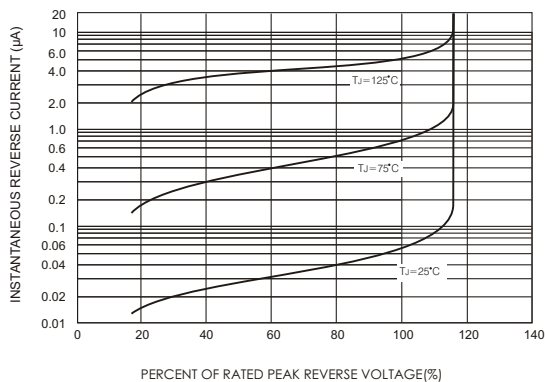


FIG.5-TYPICAL JUNCTION CAPACITANCE

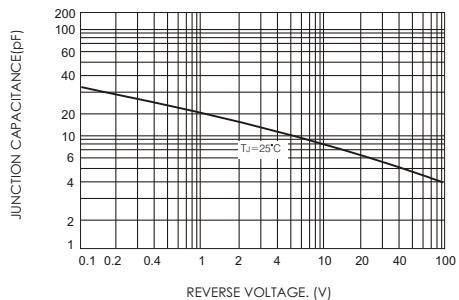


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

