



Fast Recovery Rectifier

Features

- Fast switching speed for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length
- RoHS and REACH Compliance



DO-204AL (DO-41)



Mechanical Data

Case:	Transfer molded plastic
Polarity	Color band denotes cathode end
Epoxy:	UL94V – 0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E method 208C
Mounting position:	Any
Weight:	0.012 ounce, 0.33 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

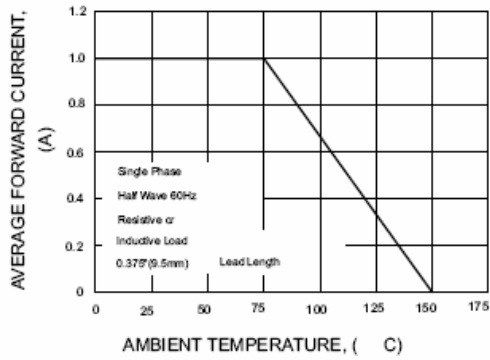
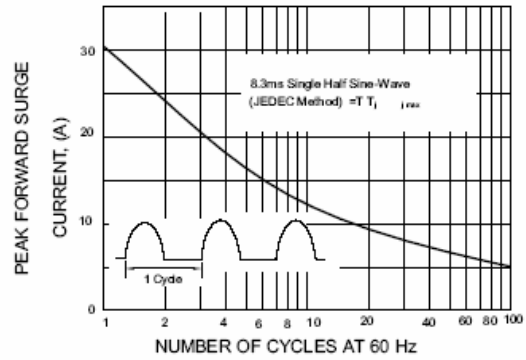
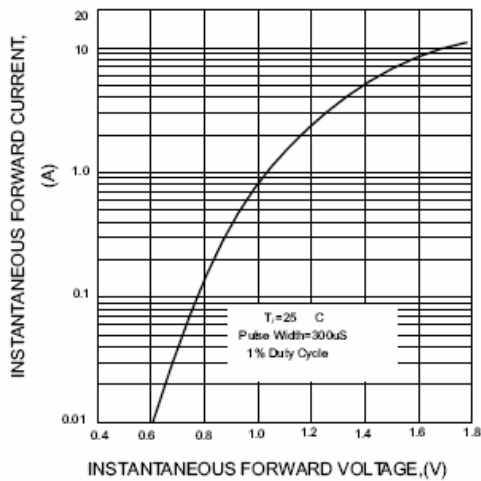
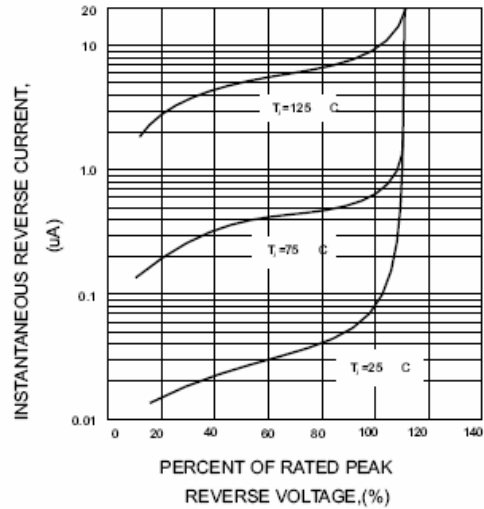
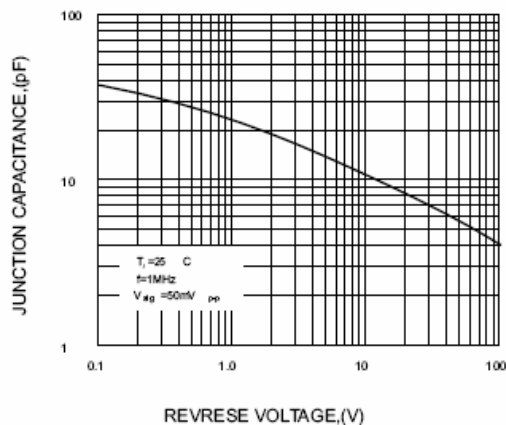
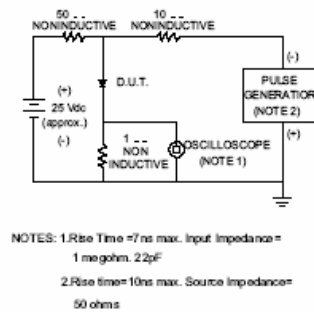
Symbol	Description	1N4942G	1N4944G	1N4946G	1N4947G	1N4948G	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	200	400	600	800	1000	V	
VRMS	Max RMS Voltage	140	280	420	560	700	V	
VDC	Max DC Blocking Voltage	200	400	600	800	1000	V	
I(AV)	Max Average Forward Rectified Current	1.0					A	0.375 (9.5MM) TC=55°C
IFSM	Peak Forward Surge Current	30					A	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-65 to +175-65 to +175					°C	
TRR	Maximum Reverse Recovery Time	150	250		500		nS	Note 1

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

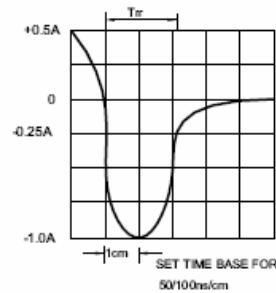
Symbol	Description	1N4942	1N4944	1N4946	1N4947	1N4948	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.3					V	Drop per Bridge element 1.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0					µA	TA=25°C
		200					mA	TA=125°C
Rθ-JA	Typical Thermal Resistance	50					°C/W	Note 2
CJ	Typical Junction Capacitance	15					pF	Measured at 1.0MHz / 4.0V

Note:

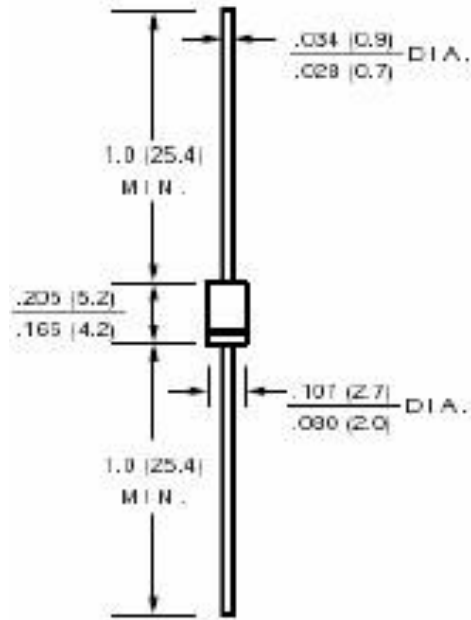
1. Reverse Recovery Test conditions: $I_R=1.0A$, $V_R=30V$, $di/dt=50A/\mu S$, $I_{RR}=10\% I_{RM}$
2. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted.

1N4942G~ 1N4948G
RATINGS AND CHARACTERISTIC CURVES 1N4942 THRU 1N4948
FIG.1-TYPICAL 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 CHARACTERISTIC


NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm, 22pF
2. Rise time = 10ns max. Source Impedance = 50 ohms



Dimensions in inches (mm)



DO-41

Contact us:

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