

FAST RECOVERY GLASS PASSIVATED RECTIFIER

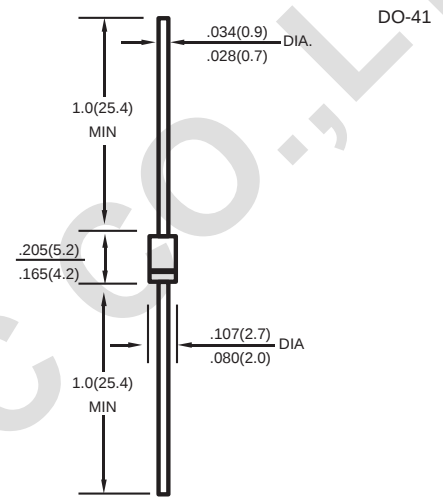
FEATURES

- Fast switching for high efficiency
- High current surge capability
- Low leakage
- Glass passivated chip junction
- High temperature soldering guaranteed:
260°C/10 seconds/0.375" (9.5mm) lead length
at 5 lbs (2,3kg) tension

MECHANICAL DATA

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

VOLTAGE RANGE 200 to 1000 Volts
CURRENT 1.0 Ampere



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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	IN 4942G	IN 4944G	IN 4946G	IN 4947G	IN 4948G	UNITS
Maximum Repetitive 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 =55°C		I _(AV)	1.0					Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	30					Amps
Maximum Instantaneous Forward Voltage at 1.0A		V _F	1.3					Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25°C	I _R	5.0					μAmps
	T _A =125°C		200					
Maximum Reverse Recovery Time(NOTE3)		t _{rr}	150		250		500	nS
Typical Junction Capacitance(NOTE1)		C _J	15					pF
Typical Thermal Resistance(NOTE2)		R _{θJA}	50					°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	-65 to +175					°C

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.
3. Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.

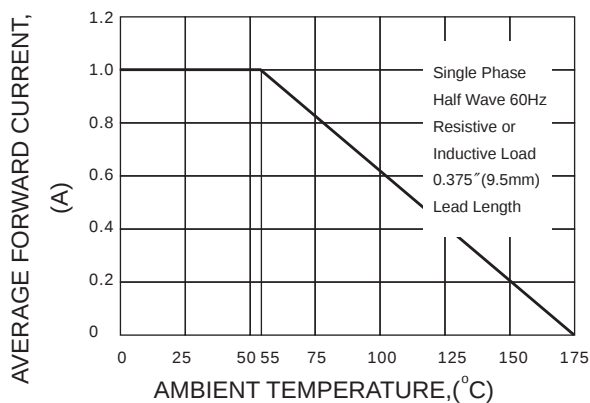
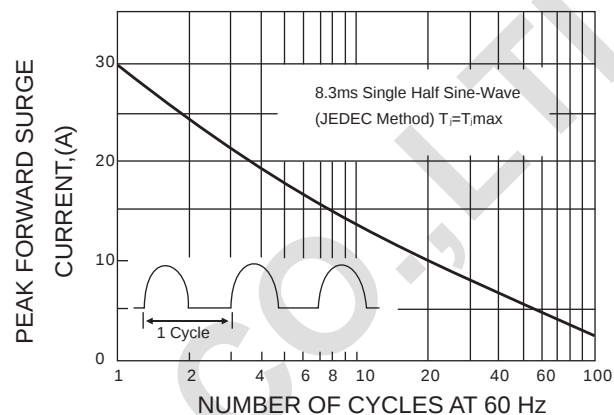
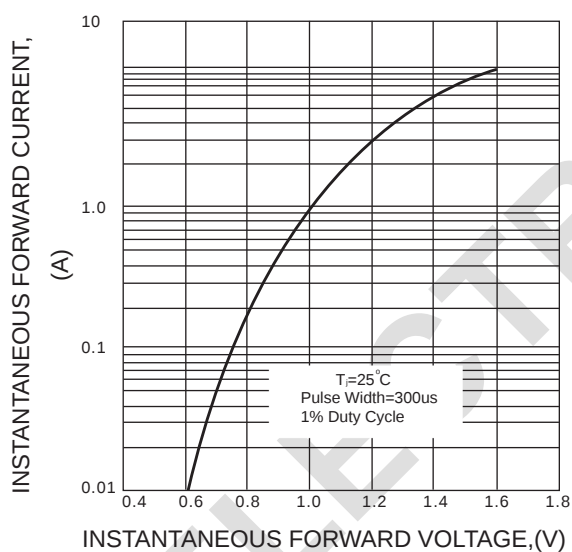
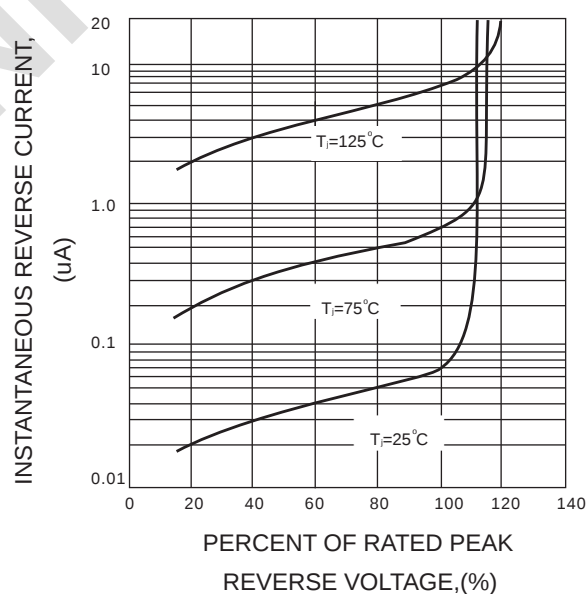
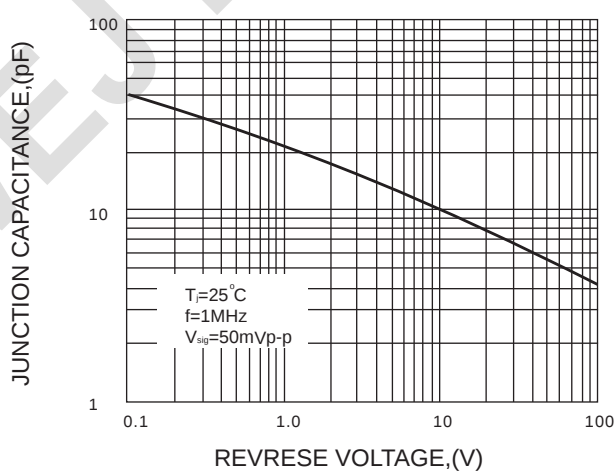
FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVEFIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENTFIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICSFIG.4-TYPICAL REVERSE
CHARACTERISTICS

FIG.5-TYPICAL JUNCTION CAPACITANCE

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