

Features

- ✧ Designed for use in switching power supplies, inverters and as free wheeling diodes
- ✧ High efficiency, low VF
- ✧ High reliability
- ✧ Ultrafast recovery time for high efficiency
- ✧ 175°C operating junction temperature
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: color band denotes cathode
- ✧ High temperature soldering:
260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs.,(2.3kg) tension
- ✧ Weight: 0.40 grams

Ordering Information (example)

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
MUR160	DO-15	1.5K / AMMO box	52mm	A0	A0G

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	MUR160	MUR190	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	900	V
Maximum RMS Voltage	V_{RMS}	420	630	V
Maximum DC Blocking Voltage	V_{DC}	600	900	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	35		A
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A $T_A=150^{\circ}C$ $T_A=25^{\circ}C$	V_F	1.05 1.25	1.50 1.70	V
Maximum Reverse Current @ Rated VR $T_A=25^{\circ}C$ $T_A=125^{\circ}C$	I_R	5 150		uA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	50	75	nS
Typical Junction Capacitance (Note 3)	C_j	27	15	pF
Typical Thermal Resistance	$R_{\theta JA}$	50		°C/W
Operating Temperature Range	T_J	- 65 to + 175		°C
Storage Temperature Range	T_{STG}	- 65 to + 175		°C

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.



RATINGS AND CHARACTERISTIC CURVES (MUR160 THRU MUR190)

FIG.1 FORWARD CURRENT DERATING CURVE

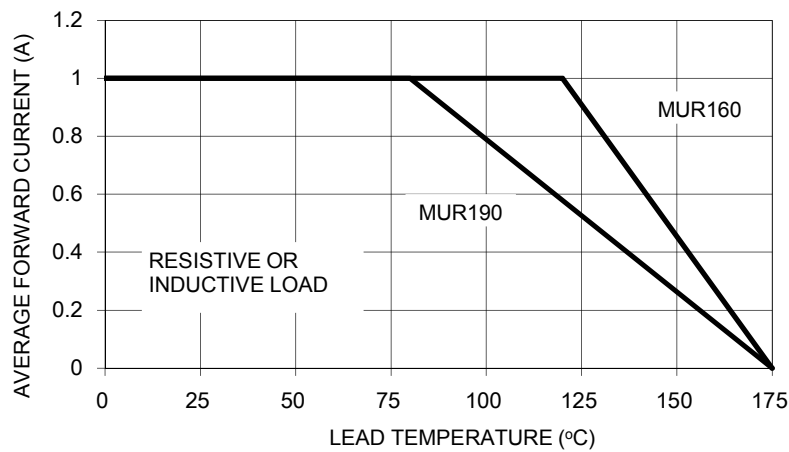


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

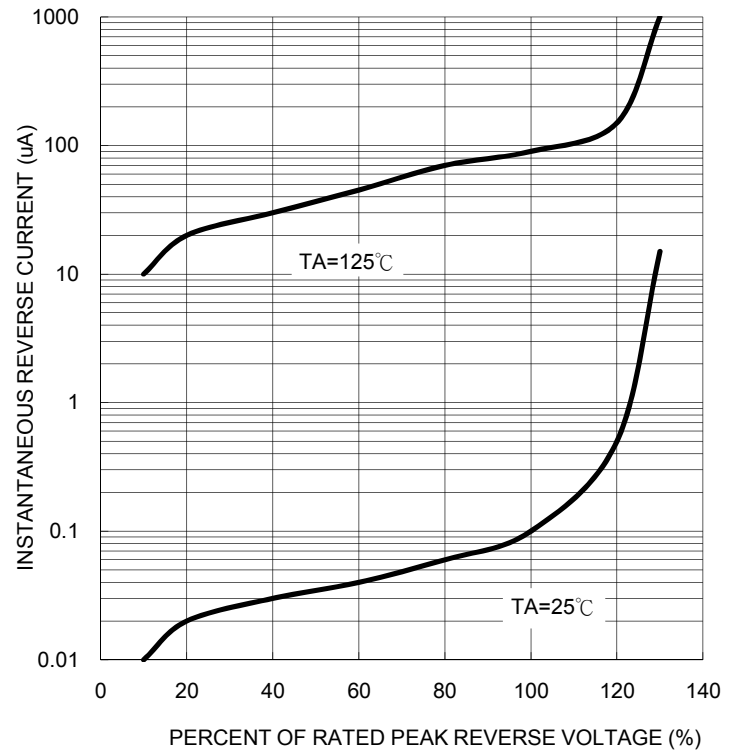


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

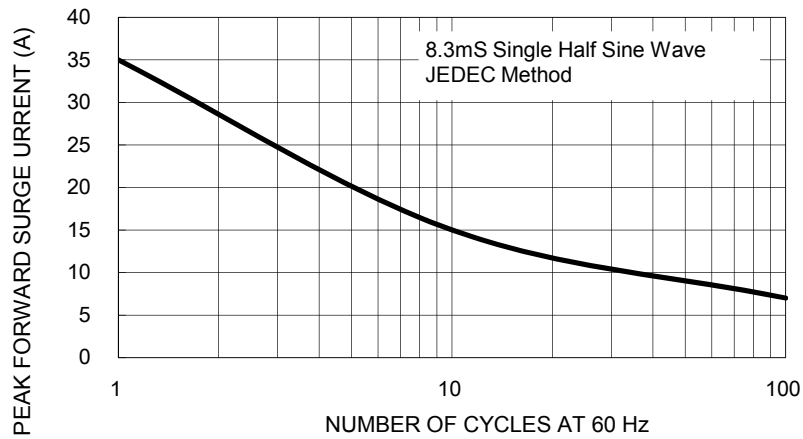


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

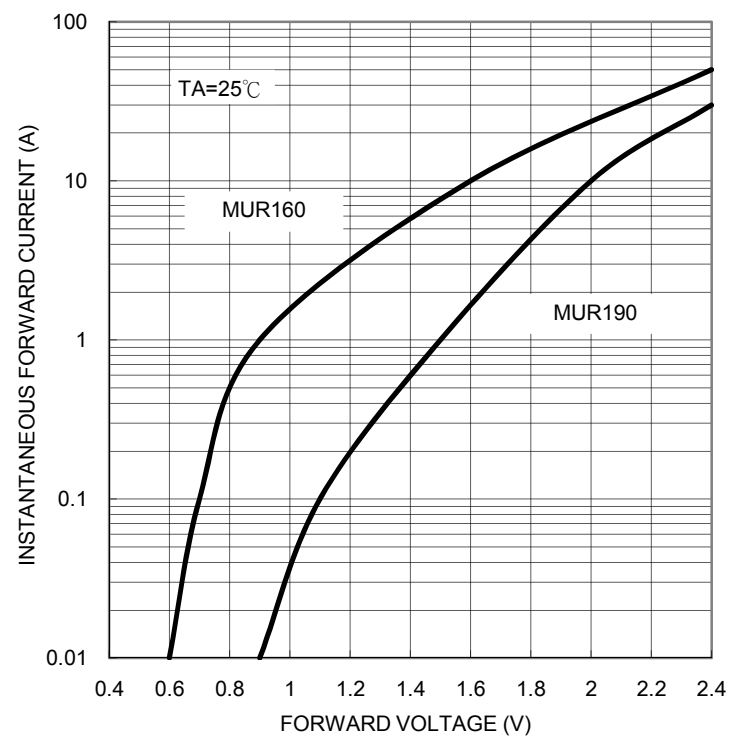


FIG. 4 TYPICAL JUNCTION CAPACITANCE

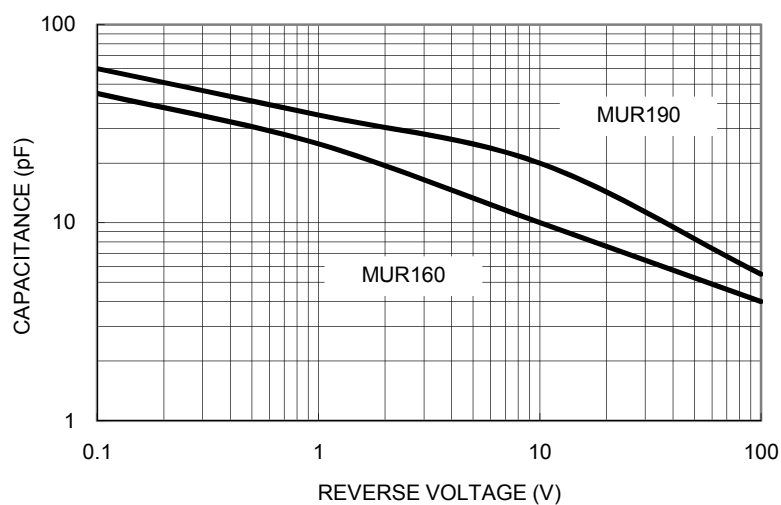
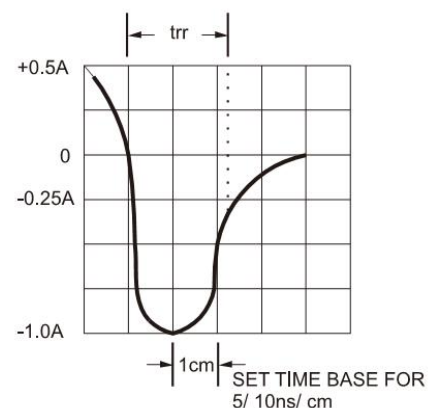
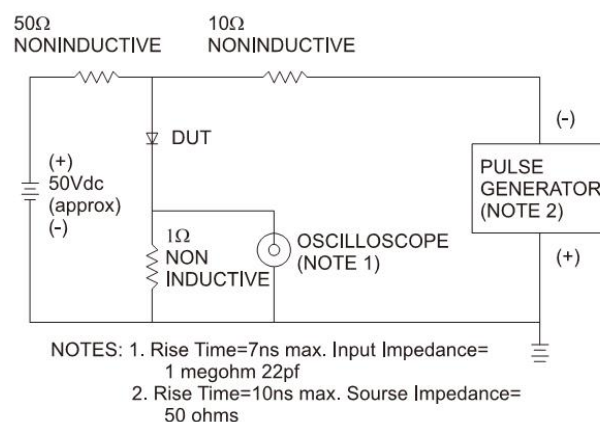


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

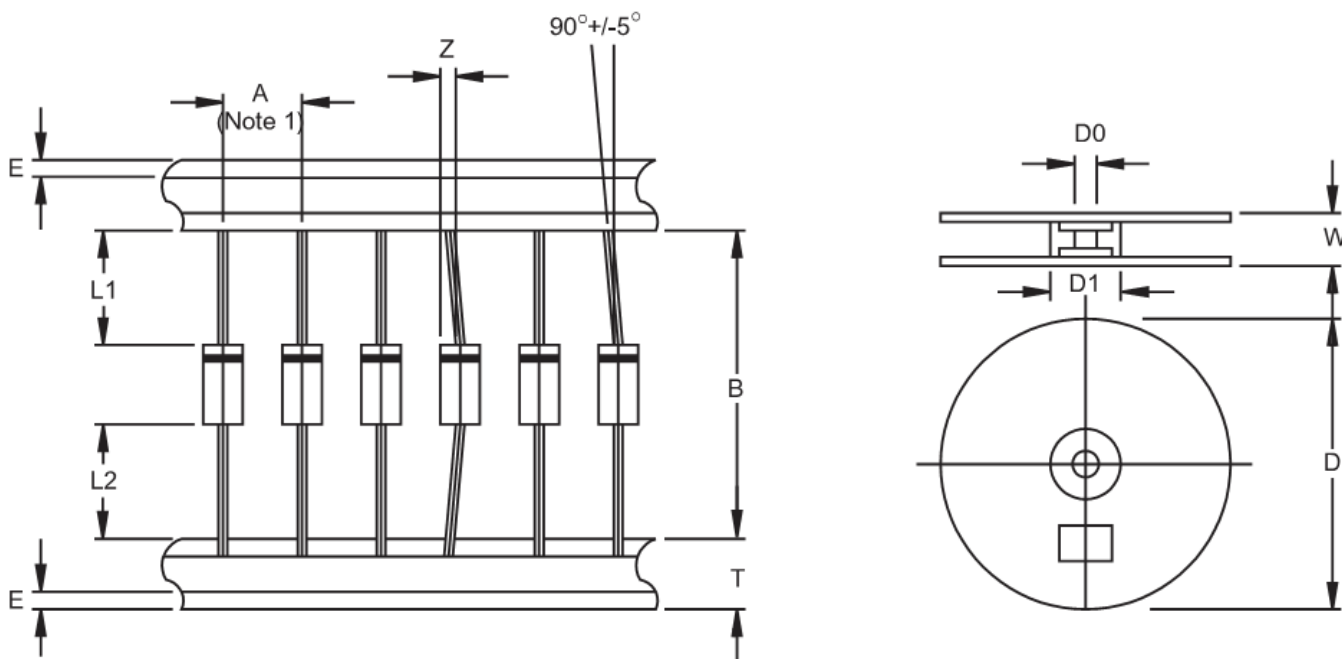


Ordering information

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
MUR1xx (Note)	DO-15	1.5K / AMMO box	52mm	A0	A0G
	DO-15	3.5K / 13" Reel	52mm	R0	R0G
	DO-15	1K / Bulk packing		B0	B0G

Note: "xx" is Device Code from "60" thru "90".

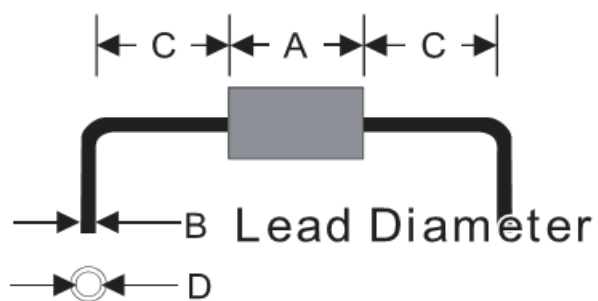
AXIAL LEAD TAPING SPECIFICATIONS



Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
	±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4	±1.0
DO-15	5	52.4	1.2	6	0.8	1	330	85.7	16.6	76

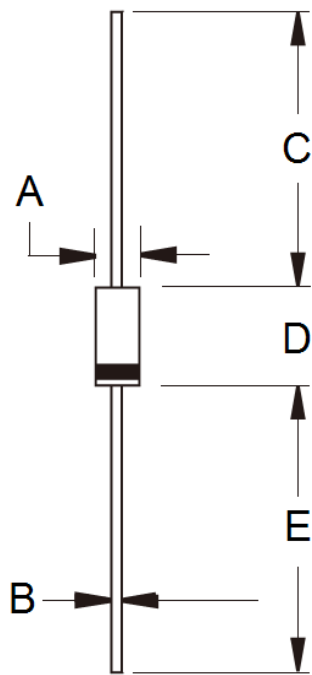
Unit (mm)

Suggested Mounting Hole Rule



Symbol	Unit(mm)
A	6.4
B	0.8
C	3.0
D	1.2

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.60	3.60	0.102	0.142
B	0.70	0.90	0.028	0.035
C	25.40	-	1.000	-
D	5.80	7.60	0.228	0.299
E	25.40	-	1.000	-

Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code

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