

MUR420 THRU MUR460

4.0A Axial Leaded Ultra Fast Rectifiers- 200V-600V

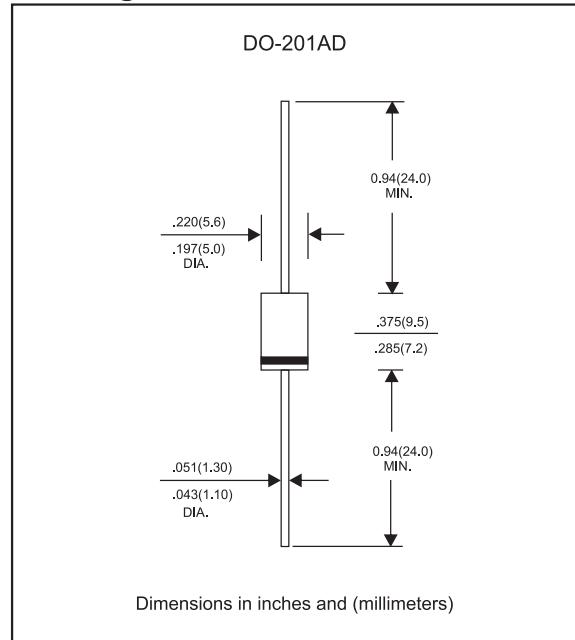
Features

- Super fast switching time for Hi-efficiency.
- Low Forward Voltage Drop.
- High Surge Current Capabiltiy.
- Low Power Loss.
- Glass passivated chip junction.
- Ultra-Fast Recovery Time.
- Lead-free parts meet RoHS requirments.
- Suffix "-H" indicates Halogen free parts, ex. MUR460-H.

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-201AD
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}C$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I_o			4.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			100	A
Reverse current	$V_R = V_{RRM} T_J = 25^{\circ}C$	I_R			5.0	μA
	$V_R = V_{RRM} T_J = 100^{\circ}C$				100	
Typical Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_j		75		pF
Storage temperature		T_{STG}	-65		+150	$^{\circ}C$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	t_{tr}^{*5} (ns)	Operating temperature $T_J, (^{\circ}C)$
MUR420	200	140	200	0.89	25	
MUR440	400	280	400	1.25	50	
MUR460	600	420	600			

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=4.0A$

*5 Maximum Reverse recovery time, note 1

Note 1. Reverse recovery time test condition, $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$

Rating and characteristic curves (MUR420 THRU MUR460)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

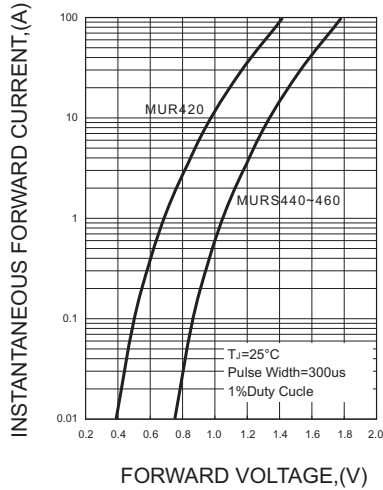


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

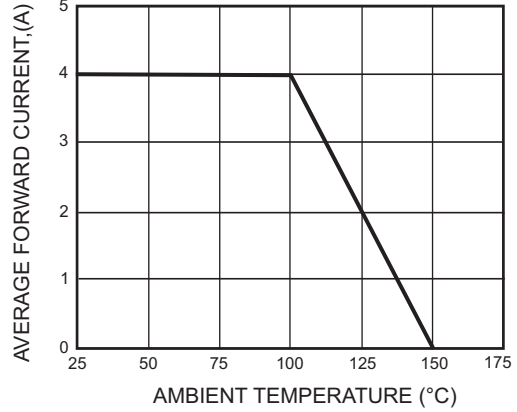


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

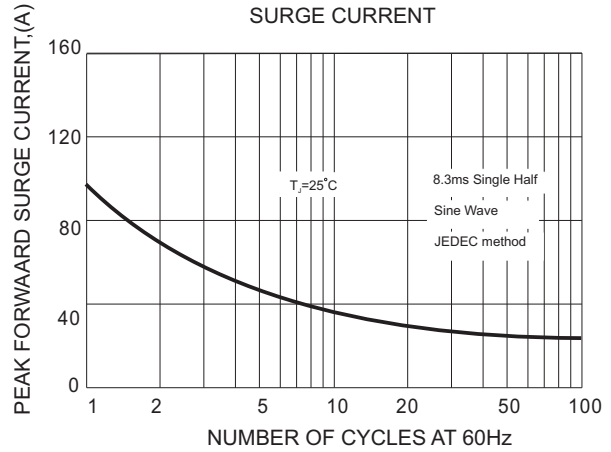
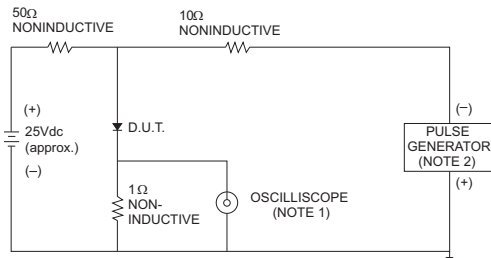


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

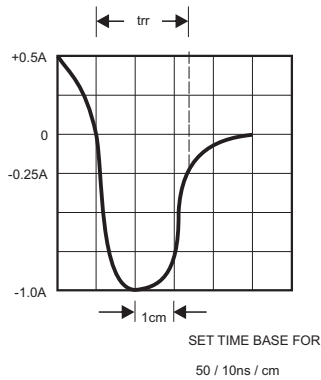
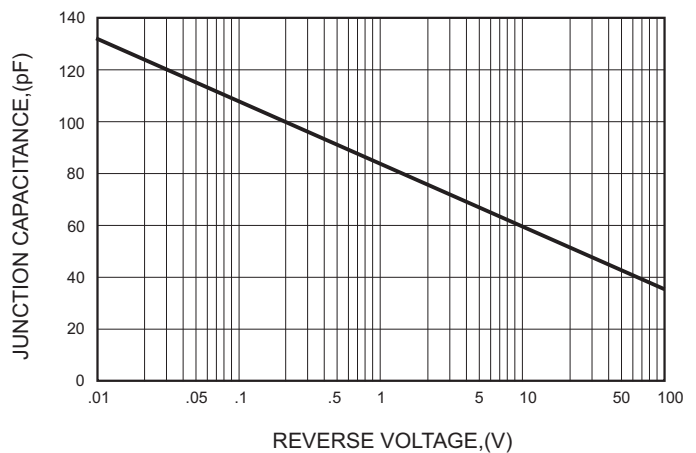




FIG.5-TYPICAL JUNCTION CAPACITANCE



MUR420 THRU MUR460

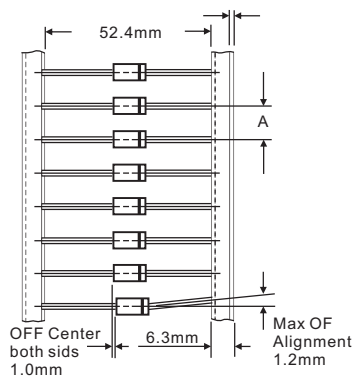
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
MUR420	MUR420
MUR440	MUR440
MUR460	MUR460

Taping specifications for AXIAL devices



AMMO PACKING

DEVICE CASE TYPE	Q'TY 1 (PCS / BOX)	INNER BOX SIZE (m/m)	CARTON SIZE (m/m)	Q'TY 2 (PCS / CARTON)	APPROX. CROSS WEIGHT(kg)
DO-201AD	1,250	252 * 78 * 150	405 * 270 * 320	12,500	14.0