

# MUR810 THRU MUR860

## Ultra-Fast Recovery Rectifier Diodes

### Features

- Super-fast recovery time for high efficiency
- Glass passivated chip junction
- Low leakage current
- High forward surge capability

### Typical Application

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer ,computer and telecommunication.

### Mechanical Data

- Package: TO-220AC  
Molding compound meets UL 94 V-0 flammability rating,RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color Band denotes cathode end



### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	MUR				
				810	815	820	840	860
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		100	150	200	400	600
Average Forward Current	$I_o$	A	60HZ sine wave, R- load, Ta=25°C	8				
Surge(Nonrepetitive)Forward Current	$I_{FSM}$	A	60Hz sine wave, 1 cycle, Ta=25°C	135				
Current Squared Time	$I^2 t$	A <sup>2</sup> s	1ms≤t<8.3ms Tj=25°C	65				
Storage Temperature	$T_{stg}$	°C		-55 ~ +150				
Junction Temperature	$T_j$	°C		-55 ~ +150				

### Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	MUR				
				810	815	820	840	860
Peak Forward Voltage	$V_{FM}$	V	$I_{FM}=8.0A$	0.95			1.25	1.7
Peak Reverse Current	$I_{RRM1}$	μA	$V_{RM}=V_{RRM}$	Ta=25°C				
	$I_{RRM2}$			Ta=125°C				
Reverse recovery time	$T_{rr}$	ns	$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$	25			35	
Thermal Resistance	$R_{\theta J-A}$	°C/W	Between junction and case	2.0				



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### ■ Characteristics (Typical)

FIG1: Forward Current Derating Curve

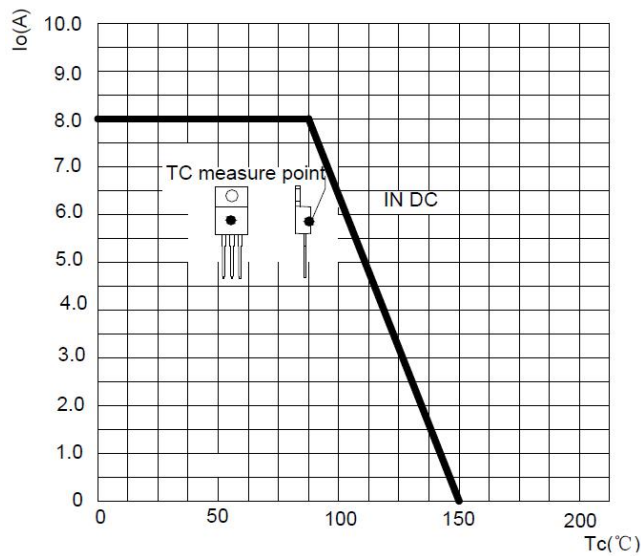


FIG2: Surge Forward Current Capability

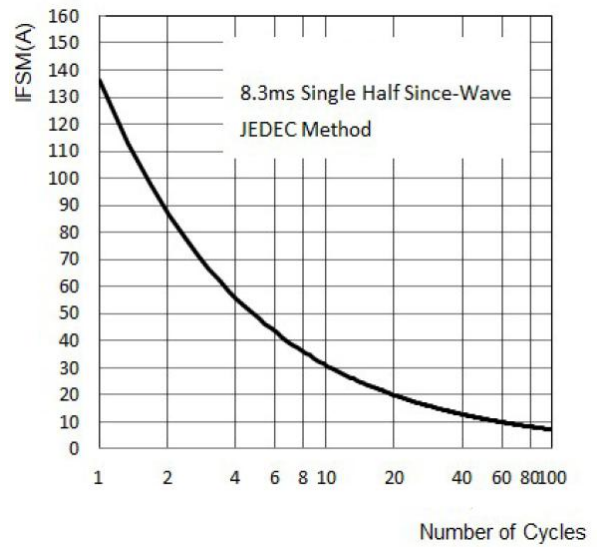


FIG3: Instantaneous Forward Voltage

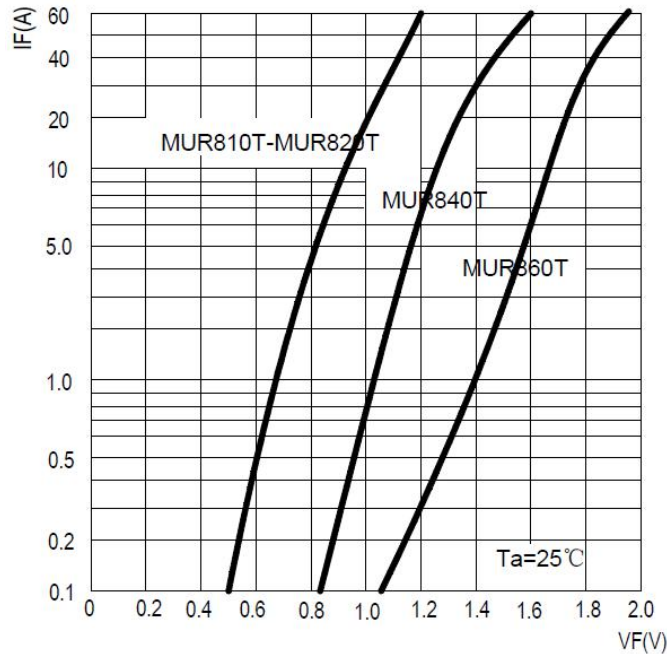


FIG4: Typical Reverse Characteristics

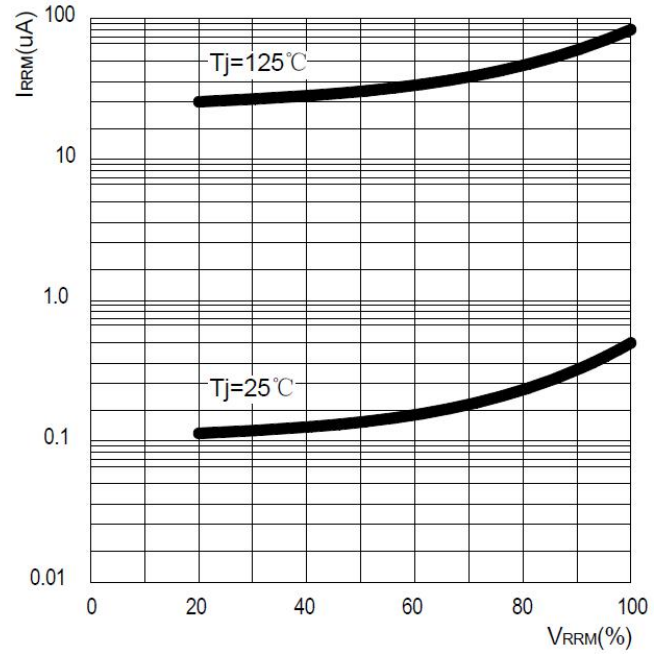
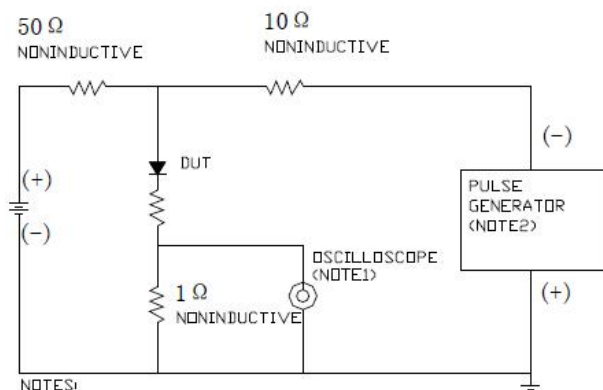
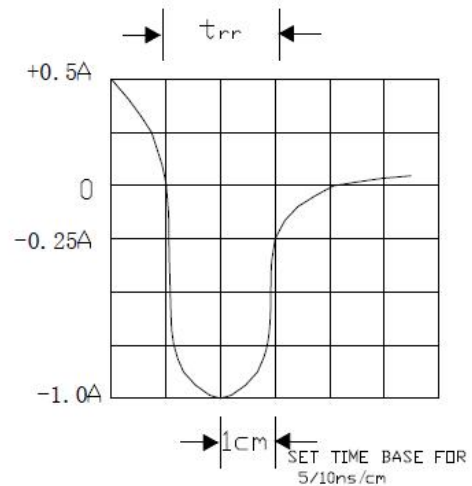


FIG5: Diagram of circuit and Testing wave form of reverse recovery time



NOTES:  
 1. Rise Time=7ns max. Input Impedance=1MΩ 22pf  
 2. Rise Time=10ns max. Source Impedance=50Ω

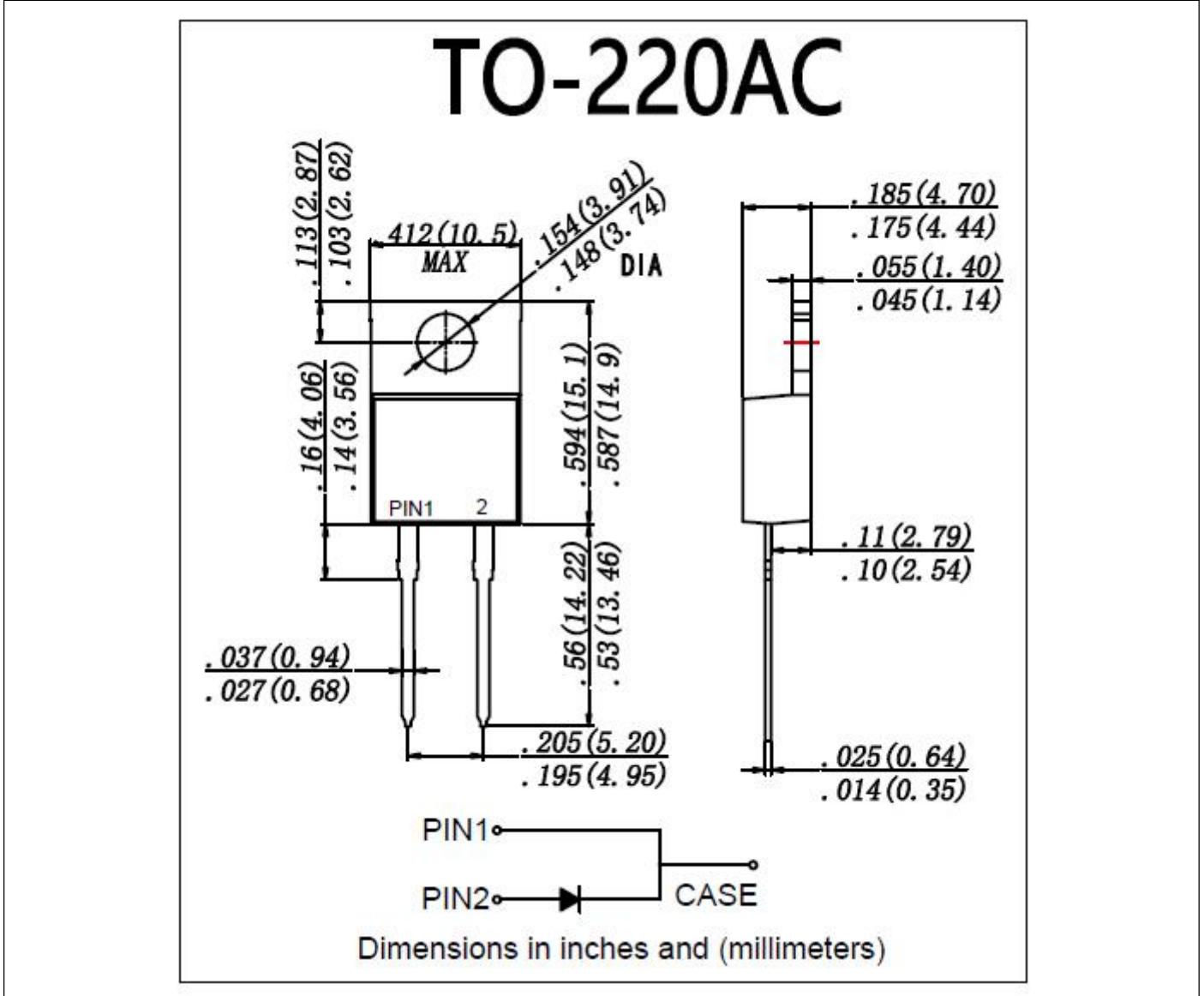


## MUR810 THRU MUR860

■ Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR810~MUR860	TO-220AC	50	1000	5000	Tube

■ Outline Dimensions



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