

## ULTRA FAST RECTIFIERS

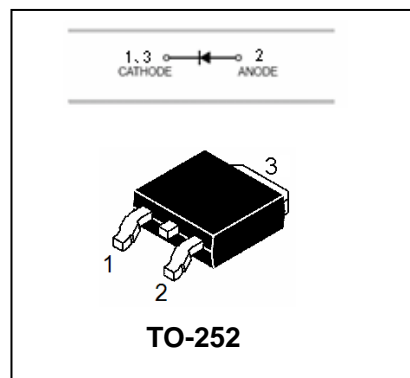
## MUR820D-MUR860D

### FEATURES

- Low cost.
- Diffused junction.
- Glass passivated junction.
- Low forward voltage drop.
- High current capability.
- Easily cleaned with Alcohol, Isopropanol and similar solvents.
- The plastic material carries U/L recognition 94V-0.



Lead-free



### MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MUR 820D	MUR 840D	MUR 860D	Unit
$V_{RRM}$	Recurrent Peak Reverse Voltage	200	400	600	V
$V_{RMS}$	RMS Voltage	140	280	420	V
$V_{DC}$	DC Blocking Voltage	200	400	600	V
$I_{F(AV)}$	Average Forward Rectified Current @ $T_A=100^\circ\text{C}$	8.0			A
$I_{FSM}$	Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load	100			A
$R_{\theta jc}$	Typical thermal resistance junction to case	3.0	2.0		$^\circ\text{C}/\text{W}$
$T_j T_{stg}$	Operating Junction and Storage Temperature Range	-65 to +175			$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MAX			UNIT
			MUR 820D	MUR 840D	MUR 860D	
Forward Voltage	$V_F$ (Note1)	$I_F=8\text{A}, T_A=25^\circ\text{C}$	0.975	1.3	1.5	V
		$I_F=8\text{A}, T_A=125^\circ\text{C}$	0.895	1.0	1.2	
Reverse Current	$I_R$	$V_R=V_{RRM}, T_A=25^\circ\text{C}$	5.0	10		$\mu\text{A}$
		$V_R=V_{RRM}, T_A=150^\circ\text{C}$	250	500		
Reverse Recover Time	$t_{rr}$	$I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$	25	50		ns

Note: 1. Pulse test: pulse width=300us, duty cycle  $\leq 2.0\%$ .



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# MUR820D-MUR860D

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

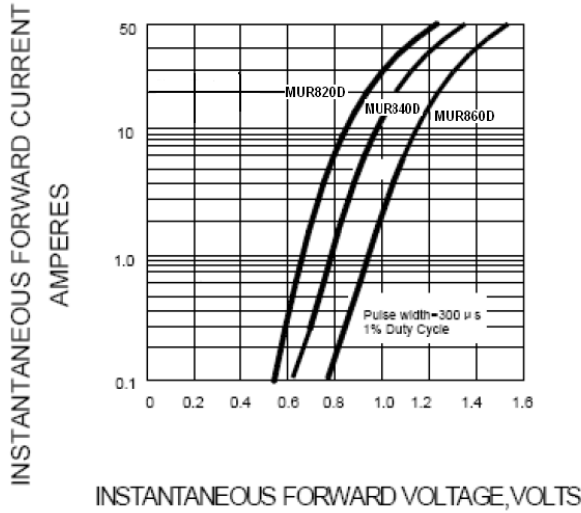


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

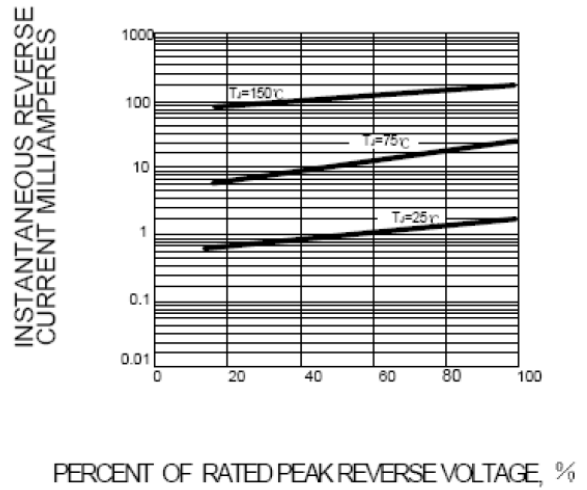


FIG.3 – PEAK FORWARD SURGE CURRENT

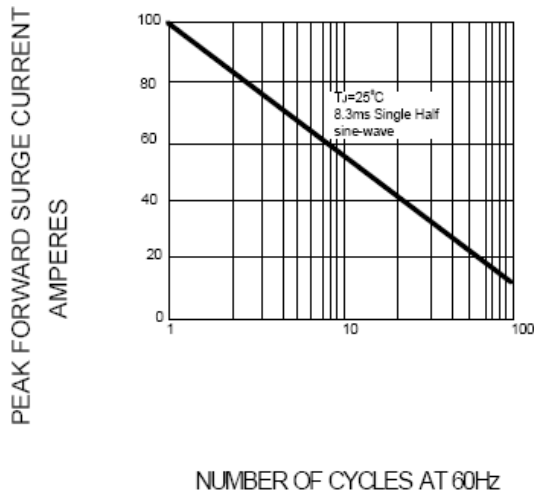
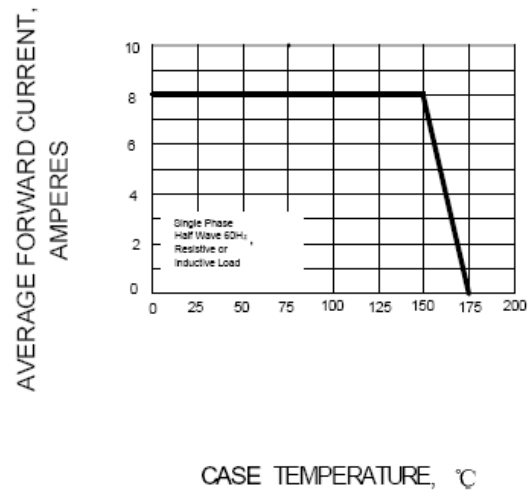


FIG.4 – FORWARD DERATING CURVE





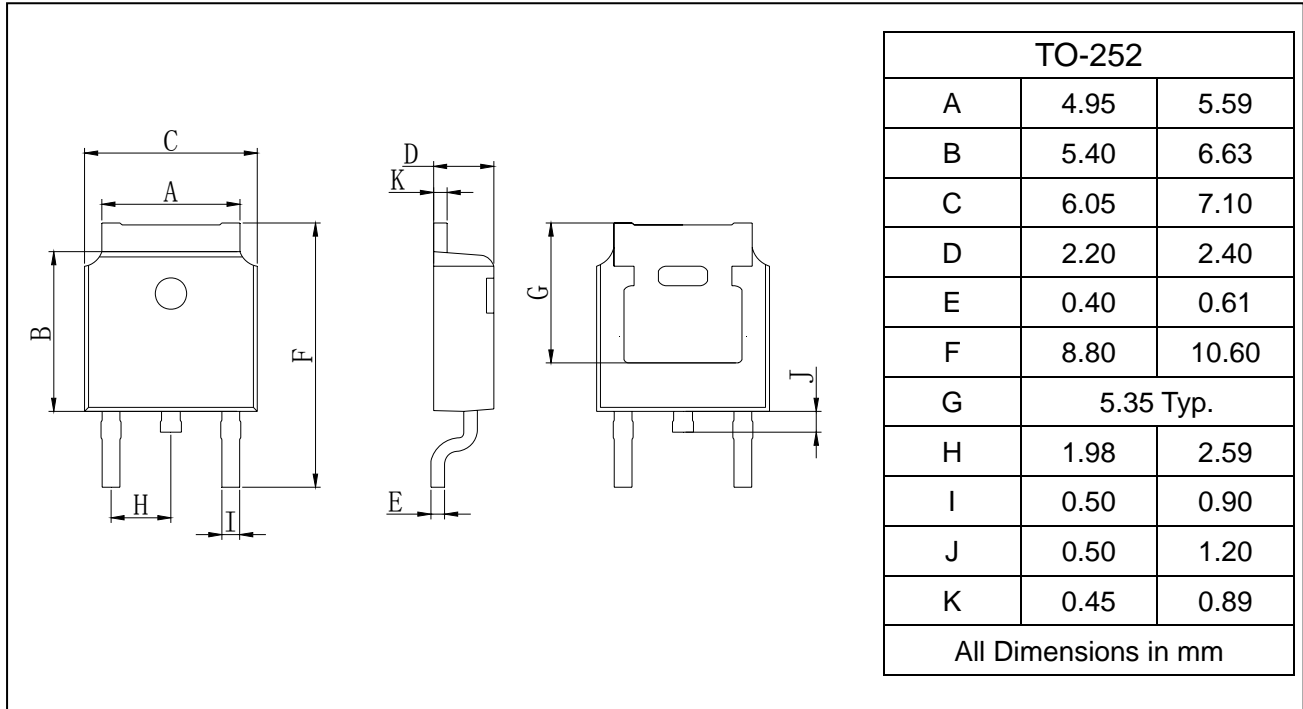
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**MUR820D-MUR860D**

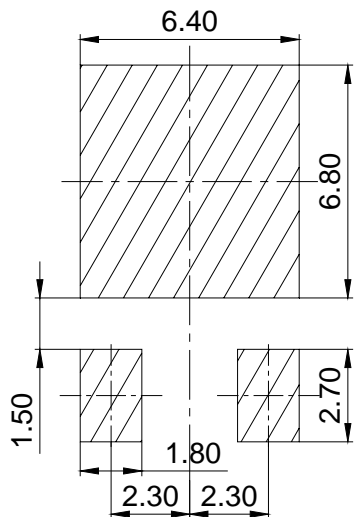
**PACKAGE OUTLINE**

Plastic surface mounted package

TO-252



**SOLDERING FOOTPRINT**



Unit:mm



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## ULTRA FAST RECTIFIERS

## MUR820D-MUR860D

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### PACKAGE INFORMATION

Device	Package	Shipping
MUR820D-MUR860D	TO-252	80PCS/Tube
		2500PCS/Tape&Reel