

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ultrafast recovery time, Soft recovery characteristics
- Low recovery loss, Low forward voltage
- Low leakage current
- High surge current capability
- For use in freewheeling, snubber, clamp, inversion welder, PFC, plating power supply, ultrasonic cleaner and welder, converter & chopper
- High temperature soldering guaranteed:260C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

TO-220AC



ITO-220AC



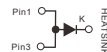
TO-263  
MURS860D2



TO-252  
MURS860M2



TO-252  
MURS860M3



## MECHANICAL DATA

- Case: JEDEC TO-220AC, ITO-220AC, TO-263, TO-252 molded plastic body
- Terminals: Lead solderable per MIL-STD-750, method 2026
- Polarity: As marked
- Mounting Position: Any

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25 °C ambient temperature unless otherwise specified )

Parameters	Symbols	Test Conditions	Values	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$		600	Volts
Power Dissipation	$P_D$		50	W
Maximum DC blocking voltage	$V_{DC}$		600	Volts
Maximum average forward rectified current	$I_{(AV)}$		8.0	Amps
Non-Repetitive Surge Forward Current	$I_{FSM}$	$T_j=45^{\circ}C, t=10ms, 50Hz, sine$	110	Amps
Forward Voltage	$V_F$	$I_F=8A$	TYP 2.0 MAX 2.3	Volts
		$I_F=8A, T_j=125^{\circ}C$	TYP 1.5 MAX 1.8	Volts
Reverse Leakage Current	$I_R$	$T_j=25^{\circ}C$	5	$\mu A$
		$T_j=125^{\circ}C$	250	
Typical thermal resistance	$R_{\theta JC}$		2.5	$^{\circ}C/W$
Operating junction temperature range	$T_J$		-55 to +175	$^{\circ}C$
Storage temperature range	$T_{STG}$		-55 to +175	$^{\circ}C$
Max Reverse Recovery Current	$I_{RRM}$	$V_R=300V, I_F=8A, diF/dt=200A/\mu s, T_j=25^{\circ}C$	2.3	Amps
Reverse Recovery Time	$T_{rr}$		30	ns
Max Reverse Recovery Current	$I_{RRM}$	$V_R=300V, I_F=8A, diF/dt=200A/\mu s, T_j=125^{\circ}C$	4.8	Amps
Reverse Recovery Time	$T_{rr}$		60	ns
Reverse Recovery Time	$T_{rr}$	$I_F=1A, V_R=30V, diF/dt=200A/\mu s$	17	ns

RATINGS AND CHARACTERISTIC CURVES

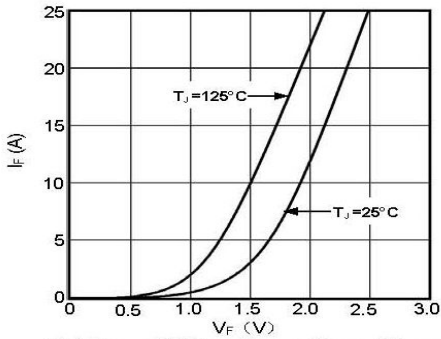


Fig1. Forward Voltage Drop vs Forward Current

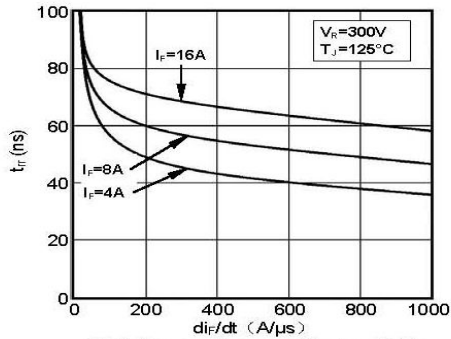


Fig2. Reverse Recovery Time vs  $di_F/dt$

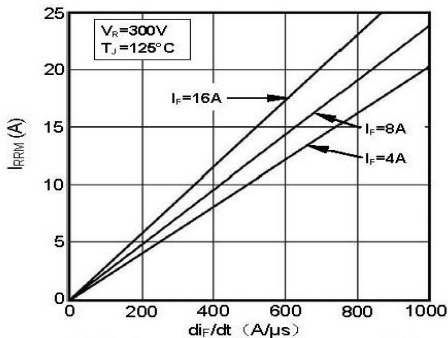


Fig3. Reverse Recovery Current vs  $di_F/dt$

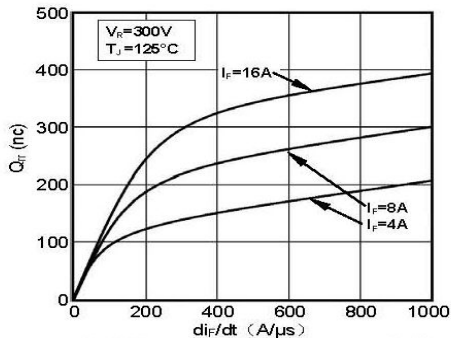


Fig4. Reverse Recovery Charge vs  $di_F/dt$

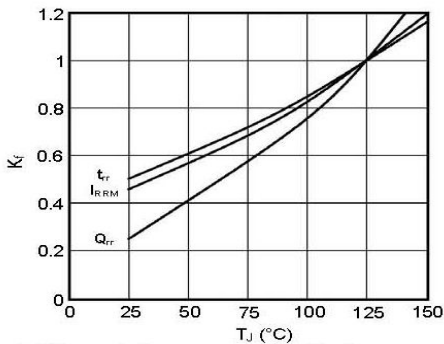


Fig5. Dynamic Parameters vs Junction Temperature

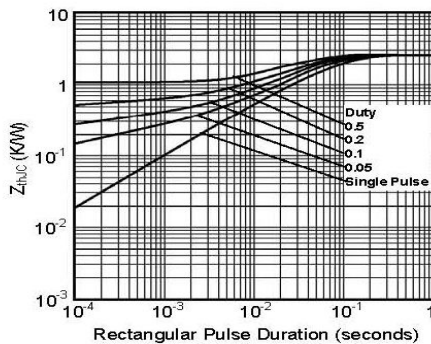


Fig6. Transient Thermal Impedance

RATINGS AND CHARACTERISTIC CURVES

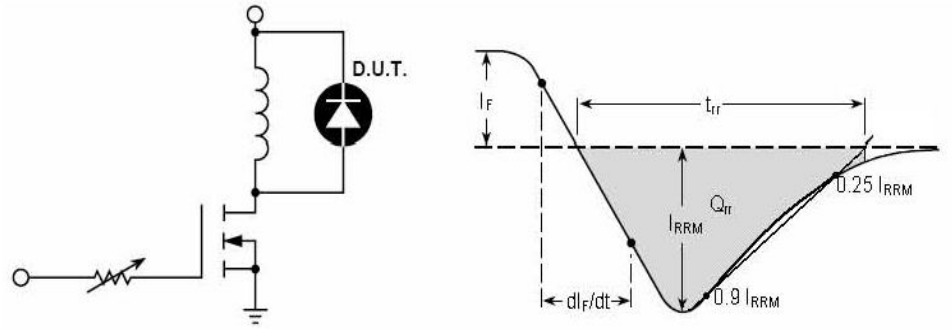
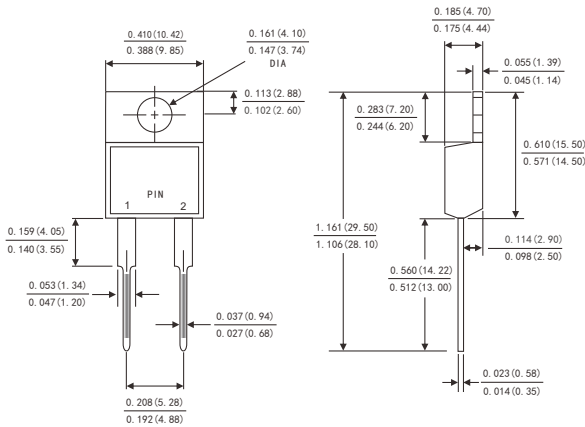


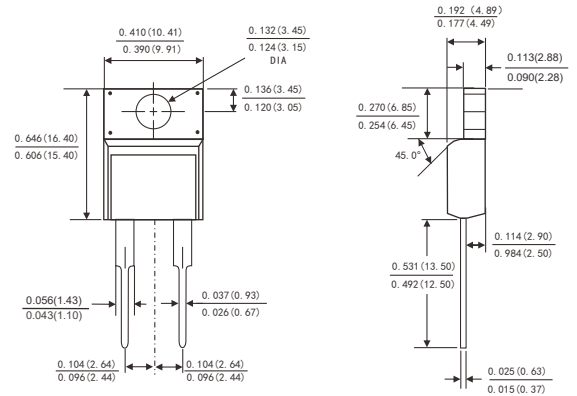
Fig7. Diode Reverse Recovery Test Circuit and Waveform

# MURS860 MURFS860 MURS860D2 MURS860M2 MURS860M3

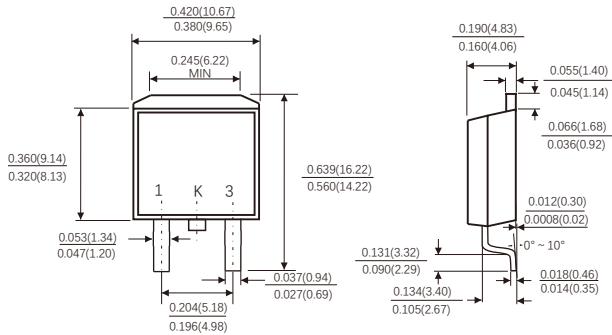
## TO-220AC



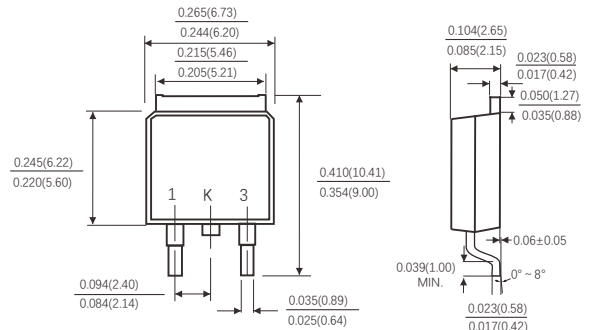
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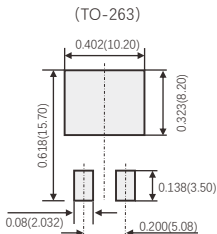
## TO-263



## TO-252

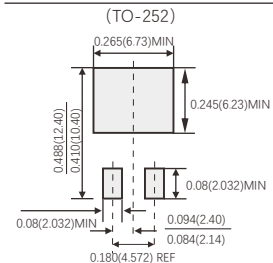


## Suggested Pad Layout



(设计者可参考推荐值根据焊接工艺要求自行确定适合的焊盘尺寸)  
(Designers can refer to the recommended values according to the manufacturing process requirements to determine the appropriate pad size)

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