

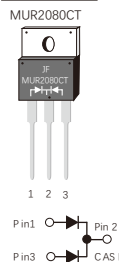
### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V -0
- Fast switching for high efficiency
- Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

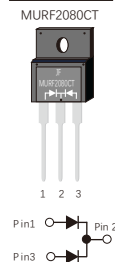
### MECHANICAL DATA

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

TO-220AB

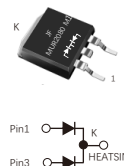


ITO-220AB



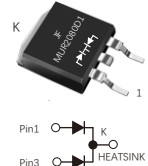
TO-252

MUR2080M1



TO-263

MUR2080D1



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25 °C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. F or capacitive load,derate by 20%.)

Parameters	Symbols	Value	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	800	Volts	
Maximum RMS voltage	$V_{RMS}$	560	Volts	
Maximum DC blocking voltage	$V_{DC}$	800	Volts	
Maximum average forward rectified current(see Fig.1)	Per leg	10	Amps	
	Total device	20		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150	Amps	
Forward voltage (Note 1)	$V_F$	$I_F=3A$	TYP. 1.7 MAX. /	Volts
		$I_F=5A$	TYP. 1.9 MAX. /	
		$I_F=10A$	TYP. 2.1 MAX. 2.5	
Reverse current at rated DC blocking voltage(Note 1)	$I_R$	$T_A=25^{\circ}C$	TYP. 1 MAX. 5	$\mu A$
		$T_A=125^{\circ}C$	TYP. 10 MAX. 50	
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	35	ns	
Typical thermal resistance	$R_{\theta JC}$	TO-220AB, TO-263, TO-252	2.5	$^{\circ}C/W$
		ITO-220AB	4.5	
Operating junction temperature range	$T_J$	-55 to +150	$^{\circ}C$	
Storage temperature range	$T_{STG}$	-55 to +150	$^{\circ}C$	

Notes: 1. Pulse test: 300  $\mu s$  pulse width,1% duty cycle

2. Reverse recovery test conditions  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

FIG.1-FORWARD CURRENT DERATING CURVE

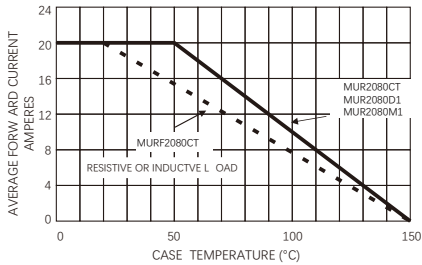


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

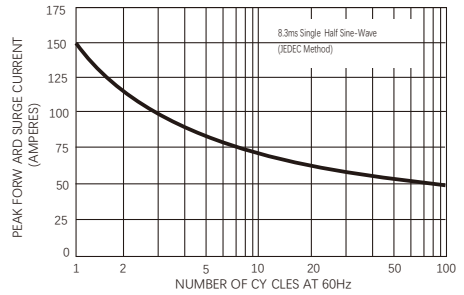


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

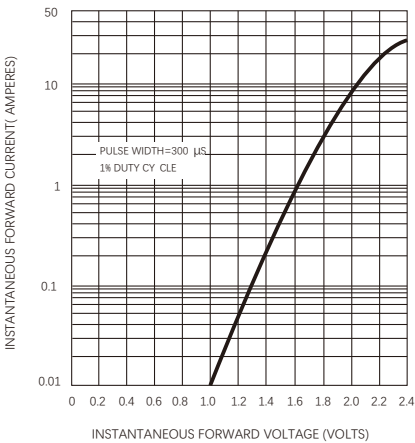
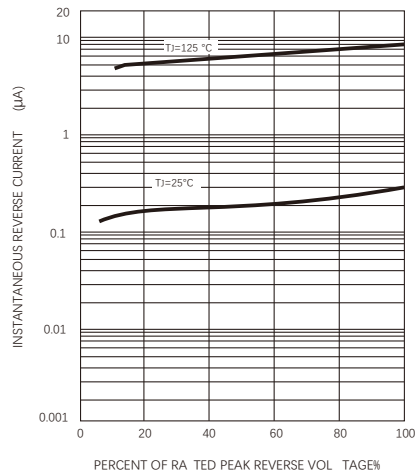
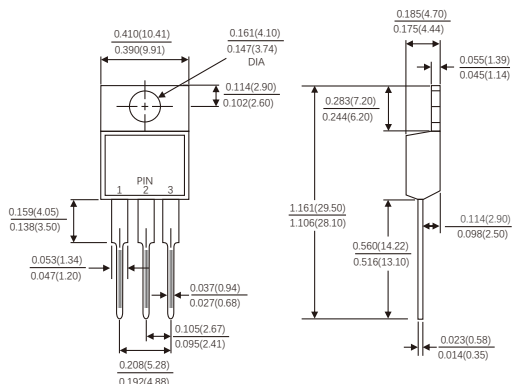


FIG.4-TYPICAL REVERSE CHARACTERISTICS

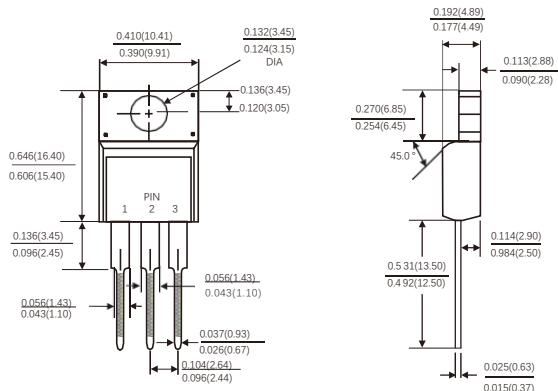


Dimensions in inches and (millimeters)

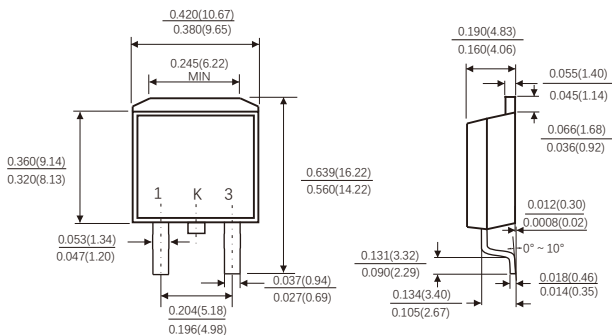
## TO-220AB



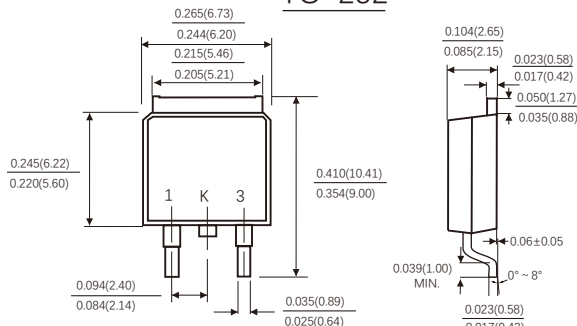
## ITO-220AB



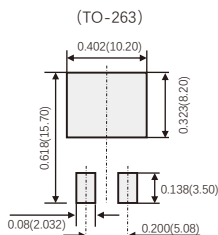
## TO-263



## TO-252



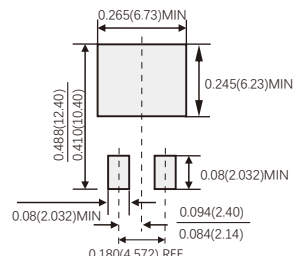
## Suggested Pad Layout



(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)

## Suggested Pad Layout

(TO-252)



(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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