

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 2011/65/EU



RoHS
COMPLIANT

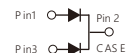
TO-220AB

MUR1680CT



MUR1680CT

Pin1 Pin2 Pin3



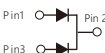
ITO-220AB

MURF1680CT



MURF1680CT

Pin1 Pin2 Pin3



TO-252

MUR1680M1



MUR1680M1

Pin1 Pin2



TO-263

MUR1680D1



MUR1680D1

Pin1 Pin2



MECHANICAL DATA

- Case: JEDEC TO-220AB, ITO-220AB, TO-263AB, TO-252AB 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 ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameter	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	$I_{(AV)}$	8.0			Amps	
	Total device		16.0				
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150				Amps	
Forward voltage (note 1)	$I_F=3A$	V_F	TYP.	1.4	MAX.	/	Volts
	$I_F=5A$		TYP.	1.6	MAX.	/	
	$I_F=8A$		TYP.	1.7	MAX.	2.4	
Reverse current at rated DC blocking voltage(Note 1)	$T_A=25^{\circ}C$	I_R	TYP.	-	MAX.	5	μA
	$T_A=125^{\circ}C$		TYP.	-	MAX.	50	
Maximum Reverse Recovery Time (Note 2)	T_{rr}	45 (TYP30)				ns	
Typical thermal resistance	$R_{\theta JC}$	TO-220AB, TO-263AB, TO-252AB	2.5			$^{\circ}C/W$	
		ITO-220AB	4.5				
Operating junction temperature range	T_J	-55 to+175				$^{\circ}C$	
Storage temperature range	T_{STG}	-55 to+175				$^{\circ}C$	

Notes: 1. Pulse test: 300 μs pulse width,1% duty cycle

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

MUR1680CT, MURF1680CT, MUR1680D1, MUR1680M1

RATINGS AND CHARACTERISTIC CURVE

FIG.1-FORWARD CURRENT DERATING CURVE

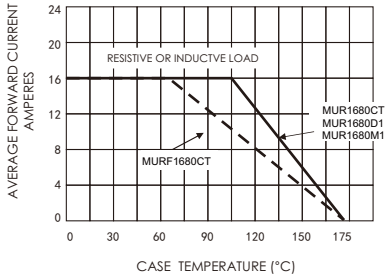


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

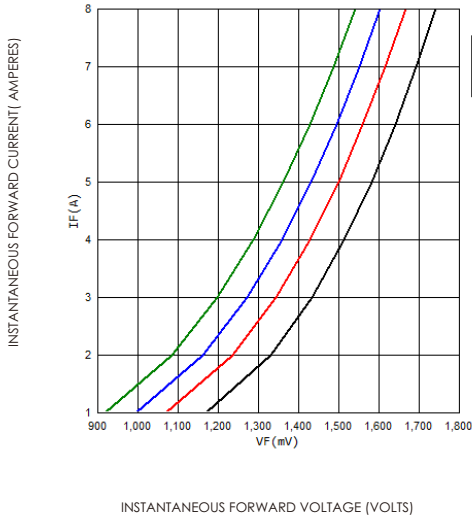


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

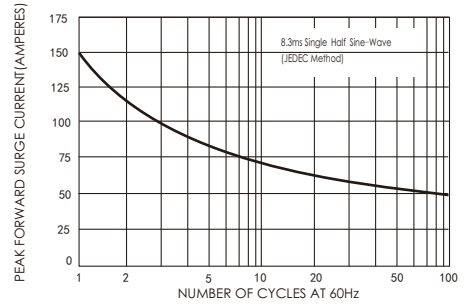
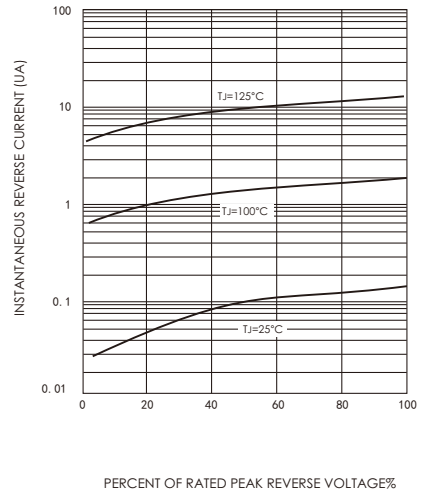


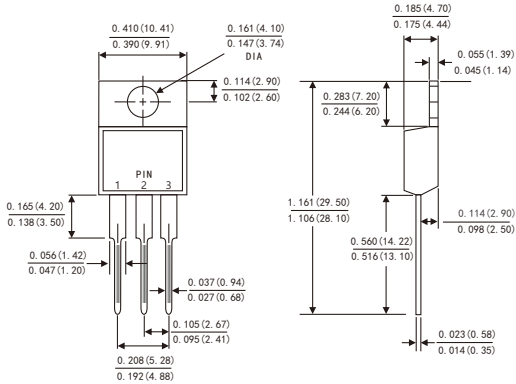
FIG.4-TYPICAL REVERSE CHARACTERISTICS



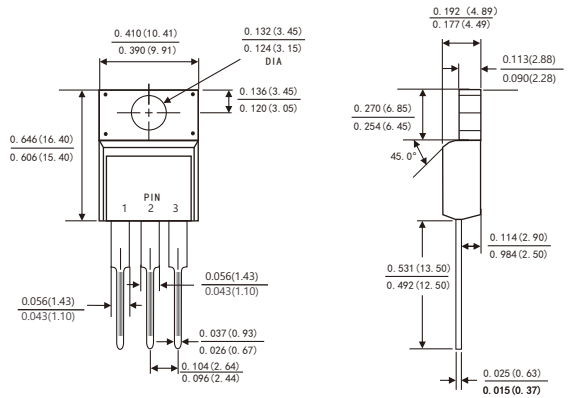
MUR1680CT, MURF1680CT, MUR1680D1, MUR1680M1

Dimensions in inches and (millimeters)

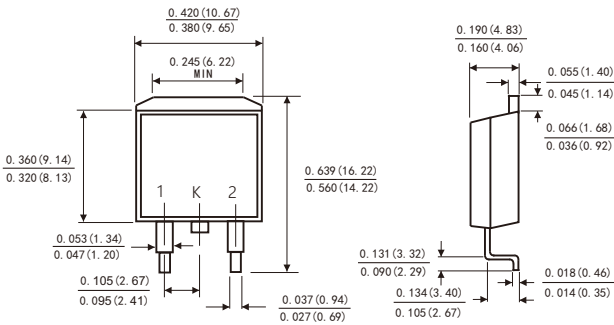
TO-220AB



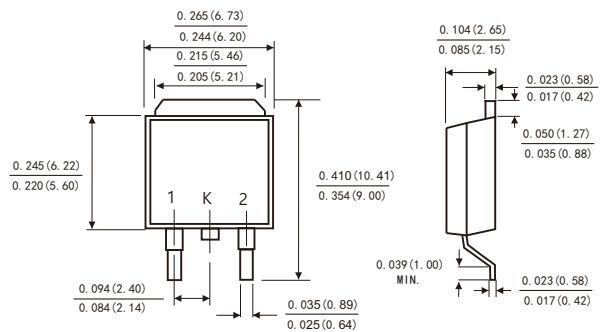
ITO-220AB



TO-263

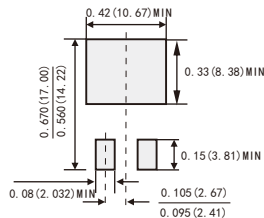


TO-252



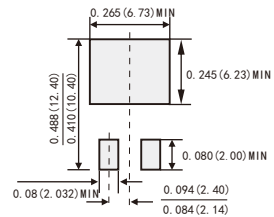
Suggested Pad Layout

(TO-263)



Suggested Pad Layout

(TO-252)



Friendship Reminder

■ JiNan JingHeng (hereinafter referred to as JH) reserves the right to make changes to this document and its products and specifications at anytime without notice.

济南晶恒（以下简称 JH）保留未经通知，变更本文件和与本文件相关的产品及规格的权利。

■ Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

使用方应在使用、采购本产品之前获取并确认产品信息和规格书的最新版本。

■ JH makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does JH assume any liability for application assistance or customer product design.

JH 对其产品用于某特定用途的适用性，既不做任何保证、说明或担保，也不承担任何应用协助或使用方设计的法定责任。

■ JH does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

JH 不保证或承担任何责任，其产品被采购使用于任何非预期或授权的应用，

■ No license is granted by implication or otherwise under any intellectual property rights of JH.

此规格书属于 JH 的知识产权,没有经过我司授权不得抄袭。

■ JH's products are not authorized for use as critical components in life support devices or systems without express written approval of JH.

没有 JH 的书面授权，JH 的产品不能在生命支撑设备或系统里作为关键零件使用。