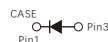


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ultrafast and soft recovery time for high efficiency
- Low VF ,Low power loss
- Polyimide passivation
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



TO-220AC

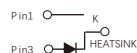


ITO-220AC



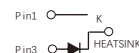
TO-263 (D²PAK)

MUR1060D2



TO-252(DPAK)

MUR1060M2



MECHANICAL DATA

- Case: JEDEC TO-220AC ITO-220AC TO-263(D²PAK) TO-252(DPAK) molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

TYPICAL APPLICATIONS

For use in boost stage in SMPS
 high frequency inverters for solar inverters
 DC/DC converters
 high frequency output rectification of battery chargers
 free wheeling diodes in motor drivers

PRIMARY CHARACTERISTICS	
I _{F(AV)}	10.0A
V _R	600V
I _{FSM}	120A
V _F at I _F =10.0A,125°C	1.08V
T _{rr typ}	30ns
T _{JMAX}	175°C

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	600	V
Maximum average forward rectified current	I _{F(AV)}	10.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T _J)	I _{FSM}	120	A
Operating junction temperature range	T _J	-55 to+ 175	°C
Storage temperature range	T _{stg}	-55 to+ 175	°C

Electrical Characteristics ($T_J=25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	$I_R=200\mu\text{A}$		V_{BR} V_R	600	–	–	V
Instaneous forward voltage	$T_J=25^\circ\text{C}$	$I_F=5.0\text{A}$	V_F ¹⁾	–	1.08	–	V
		$I_F=10.0\text{A}$		–	1.21	1.70	
	$T_J=125^\circ\text{C}$	$I_F=5.0\text{A}$		–	0.94	–	
		$I_F=10.0\text{A}$		–	1.08	1.57	
Reverse current	$T_J=25^\circ\text{C}$	$V_R=600\text{V}$	I_R ²⁾	–	–	5	μA
	$T_J=125^\circ\text{C}$			–	–	50	
Junction capacitance	4V, 1MHz		C_J	–	50	–	pF

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

2.Pulse test: pulse width $\leq 40\text{ms}$

Dynamic Recovery Characteristics ($T_J=25^\circ\text{C}$ Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	t_{rr}	–	30	35	ns

Thermal Characteristics

Parameter	Symbol	TO-220AC TO-263 TO-252	ITO-220AC	Unit
Typical thermal resistance ³⁾	R _{θjc}	1.5	3.0	°C/W

3. Thermal resistance from junction to case

Available Pack Information

Product code	Pack	Box Size L×W×H(mm)	Quantity (pcs/box)	Carton Size L×W×H(mm)	Quantity (box/carton)
MUR1060-TO-220AC	P/T	558×148×38	1000	565×225×170	5
MURF1060-ITO-220AC	P/T	558×148×38	1000	565×225×170	5
MUR1060D2-TO-263	P/T	558×148×38	1000	565×225×170	5
MUR1060M2-TO-252	P/T	558×148×38	4000	565×225×170	5

Fig.1-Forward Current Derating Curve

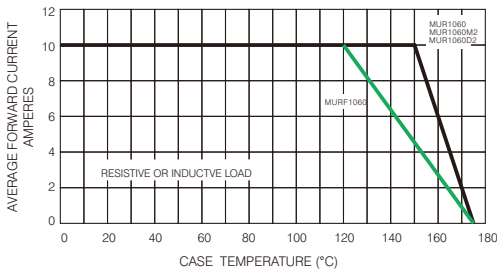


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

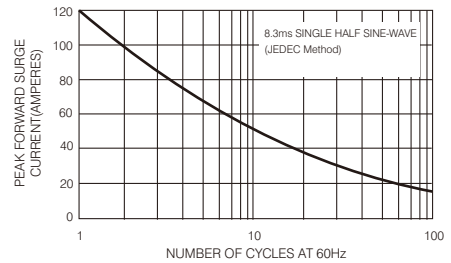


Fig.3-Typical Instantaneous Forward Characteristics

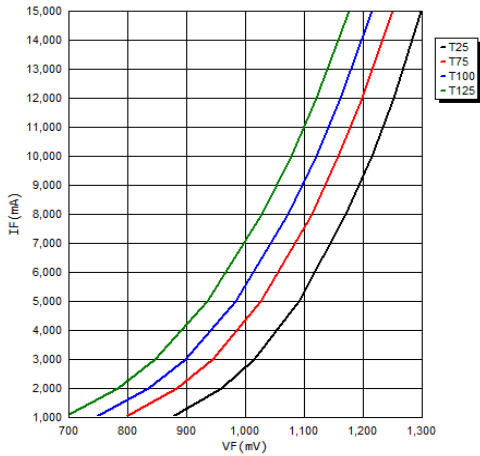


Fig.4-Typical Reverse Characteristics

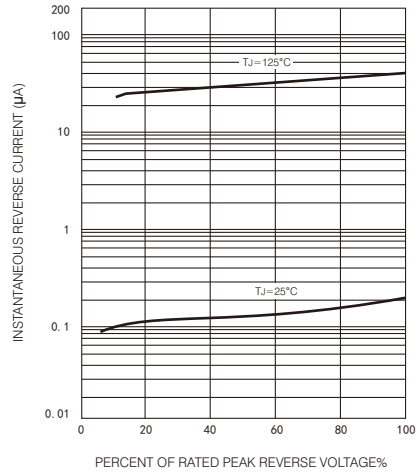
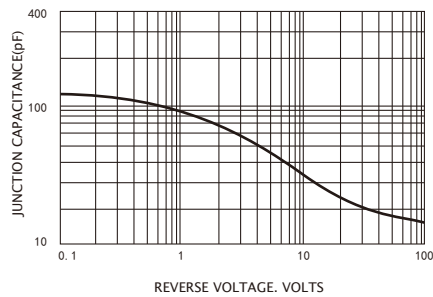
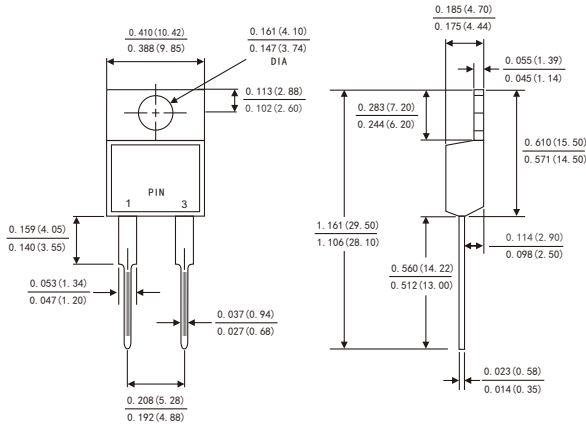


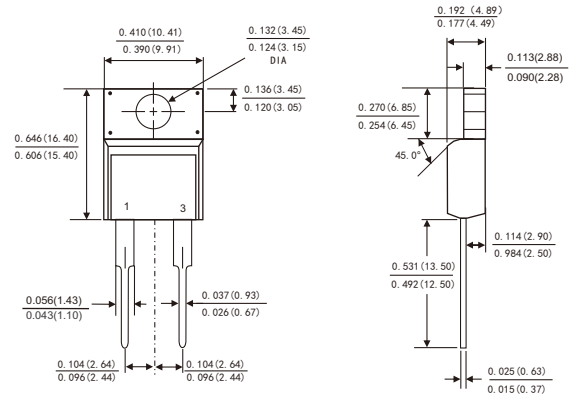
Fig.5-Typical Junction Capacitance



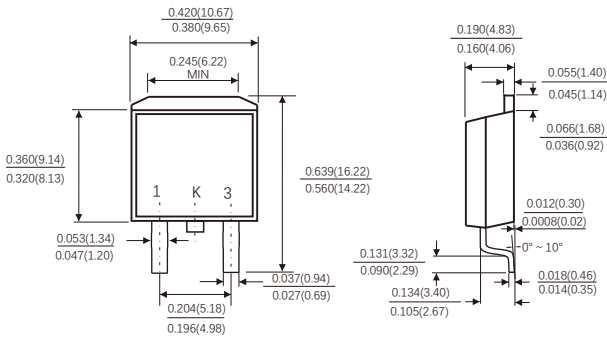
TO-220AC



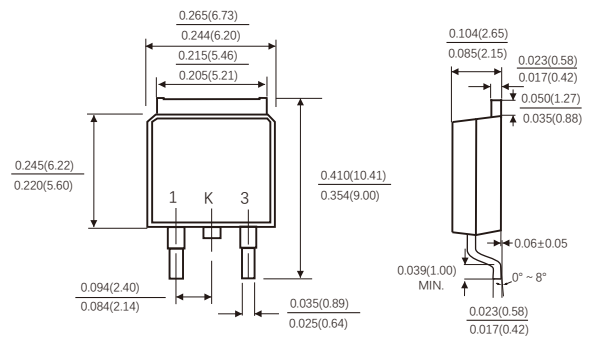
ITO-220AC



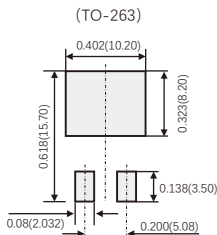
TO-263



TO-252

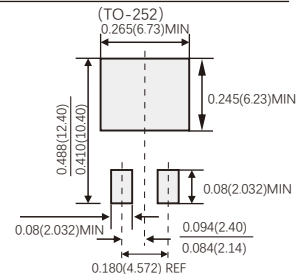


Suggested Pad Layout



(对于TO-263和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)
(For TO-263 & TO-252, Designers can refer to the recommended values according to the manufacturing process requirements to determine the appropriate pad size)

Suggested Pad Layout



Dimensions in inches and (millimeters)

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