

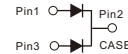
FEATURES

- 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
- Meets JESD 201 class 2 whisker test
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



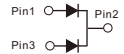
TO-220AB

MURS2060CT



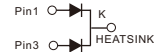
ITO-220AB

MURFS2060CT



TO-263AB

MURS2060D1



MECHANICAL DATA

- Case: JEDEC TO-220AB ITO-220AB TO-263AB 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

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	$I_F(AV)$	20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T L)	I_{FSM}	200	A
Operating junction temperature range	T_J	-55 to+175	°C
Storage temperature range	T_{stg}	-55 to+175	°C

PRIMARY CHARACTERISTICS	
$I_F(AV)$	2 × 10A
V_R	600V
I_{FSM}	200A
V_F at $I_F=10A$, Per Leg 125°C	1.60V
$T_{rr typ}$	20ns
T_{JMAX}	175 °C
Diode variation	Common cathode

RATINGS AND CHARACTERISTIC OF MURS2060CT\MURFS2060CT\MURS2060D1

ELECTRICAL CHARACTERISTICS (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	I _R =200 μA		V _{BR} V _R	600	—	—	V
Instaneous forward voltage	T _J =25°C	I _F =1A	V _F ¹⁾	—	1.10	—	V
		I _F =5A		—	1.70	—	
		I _F =10A		—	2.10	2.40	
	T _J =125°C	I _F =1A		—	0.80	—	
		I _F =5A		—	1.20	—	
		I _F =10A		—	1.60	—	
Reverse current	T _J =25°C	V _R =600V	I _R ²⁾	—	0.1	10	μA
	T _J =100°C			—	5.0	—	μA
	T _J =125°C			—	15	—	
Junction capacitance	4V, 1MHz		C _J	—	33	—	pF

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

2. Pulse test: pulse width ≤40ms

DYNAMIC RECOVERY CHARACTERISTICS (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	I _F =0.5A, I _R =1.0A, I _{RR} =0.25A	t _{rr}	—	20	25	ns

RATINGS AND CHARACTERISTIC OF MURS2060CT\MURFS2060CT\MURS2060D1

THERMAL CHARACTERISTICS

Parameter	Symbol	T0-220AB T0-263AB	IT0-220AB	Unit
Typical thermal resistance ³⁾	$R_{\theta jc}$	2.5	4.5	°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)
MURS2060CT-T0-220AB	P/T	558×148×38	1000	565×225×170	5
MURFS2060CT-IT0-220AB	P/T	558×148×38	1000	565×225×170	5
MURS2060D1-T0-263	P/T	558×148×38	1000	565×225×170	5

RATINGS AND CHARACTERISTIC OF MURS2060CT\MURFS2060CT\MURS2060D1

FIG. 1-FORWARD CURRENT DERATING CURVE

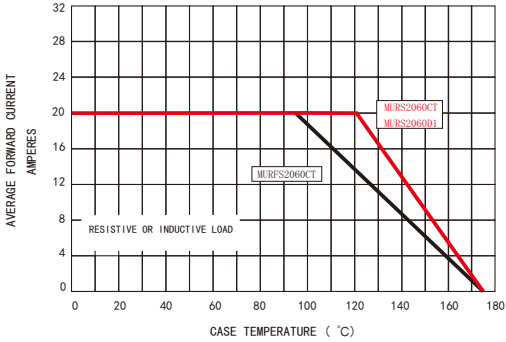


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

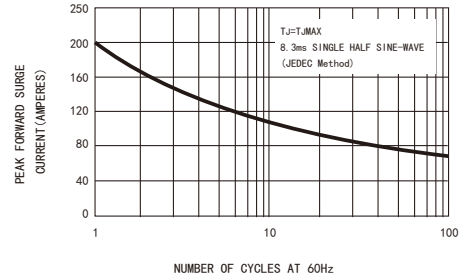


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

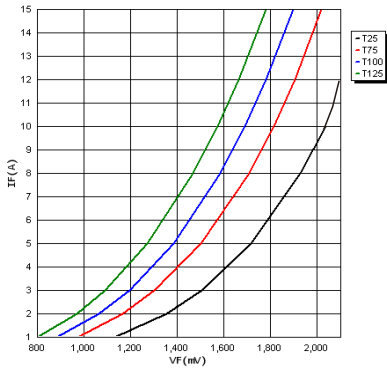
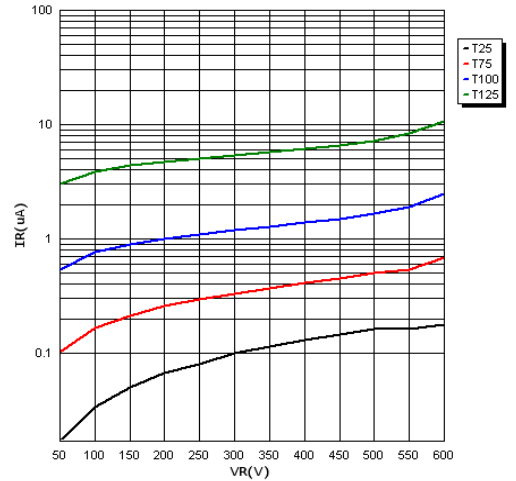


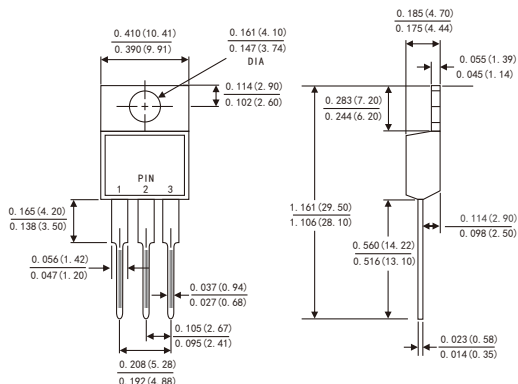
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



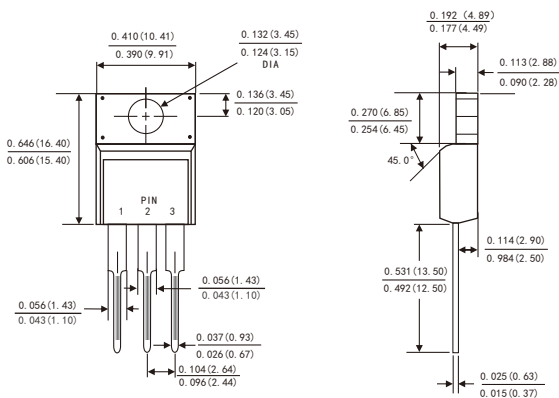
PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

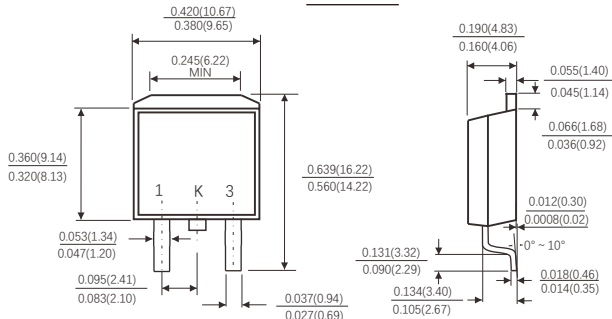
T0-220AB



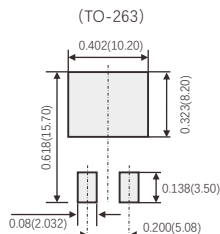
ITO-220AB



T0-263



Suggested Pad Layout



(设计者可参考推荐性根据焊接工艺
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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