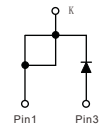
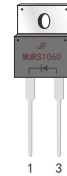


T0-220AC

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 2015/863/EU

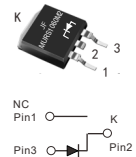
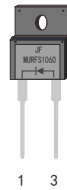


IT0-220AC

T0-252

Mechanical Data

- Case: JEDEC T0-220AC IT0-220AC T0-252 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)	10A
V_R	600V
I_{FSM}	100A
V_f at $I_F=10A, 125^\circ C$	1.60V
$T_{rr typ}$	20ns
T_{JMAX}	175 °C
Diode variation	Single die

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	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T L)	I_{FSM}	100	A
Operating junction temperature range	T_J	-55 to+175	°C
Storage temperature range	T_{stg}	-55 to+175	°C

RATINGS AND CHARACTERISTIC OF MURS1060\MURFS1060\MURS1060M2

Electrical Characteristics (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max .	Unit
Breakdown voltage Blocking voltage	IR=200 μA		V _{BR} V _R	600	—	—	V
Instaneous forward voltage	T _J =25°C	IF=1A	V _F 1)	—	1.10	—	V
		IF=5A		—	1.70	—	
		IF=10A		—	2.10	2.40	
	T _J =125°C	IF=1A		—	0.80	—	
		IF=5A		—	1.20	—	
		IF=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	IF=0.5A, IR=1.0A, IRR=0.25A	t _{rr}	—	20	25	ns

Thermal Characteristics

Parameter	Symbol	T0-220AC	IT0-220AC	T0-252	Unit
Typical thermal resistance ³⁾	R _{θJC}	2.5	4.5	2.5	°C/W

3. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC OF MURS1060\MURFS1060\MURS1060M2

Available Pack Information

Product code	Pack	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton SizeL×W×H(mm)	Quantity(box/carton)
MURS1060-T0-220AC	P/T	558×148×38	1000	565×225×170	5
MURFS1060-I10-220AC	P/T	558×148×38	1000	565×225×170	5
MURFS1060M2-T0-252	P/T	558×148×38	4000	565×225×170	5

FIG. 1-FORWARD CURRENT DERATING CURVE

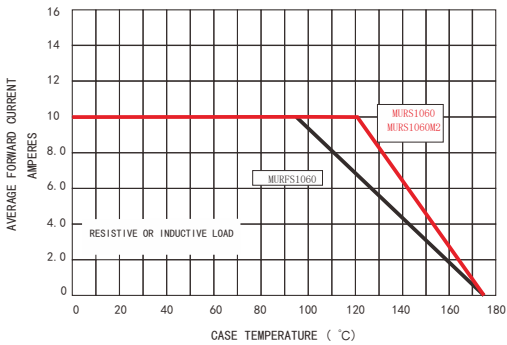


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

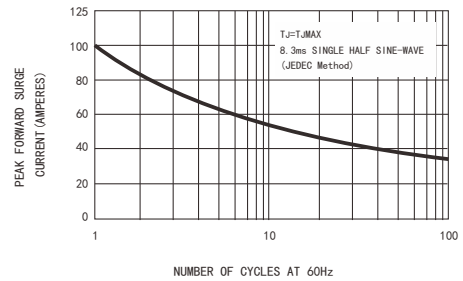


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

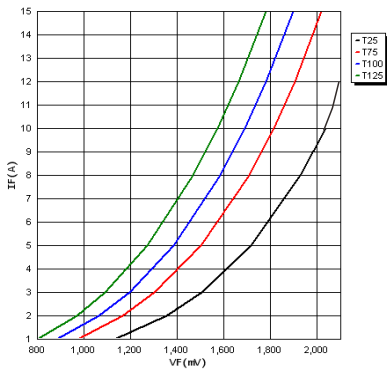
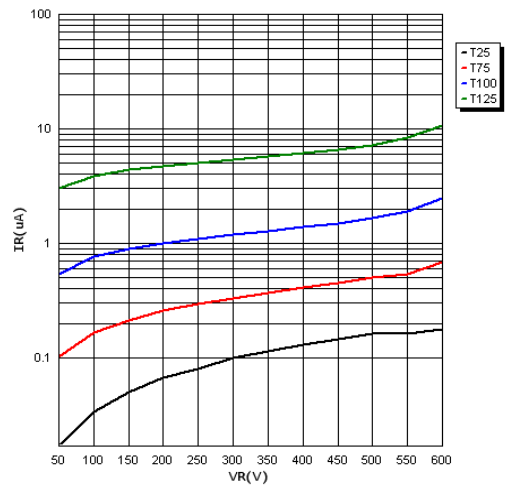


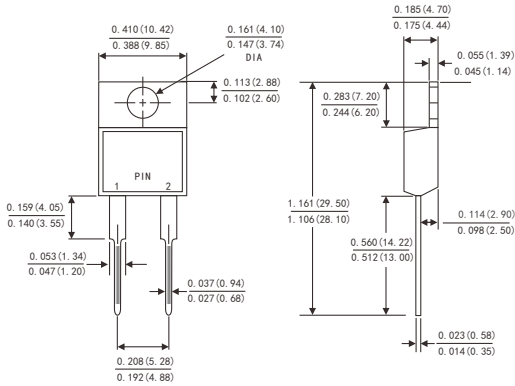
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



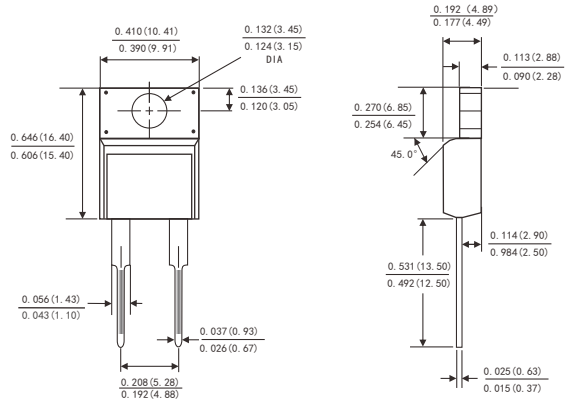
MURS1060\MURFS1060\MURS1060M2

PACKAGE OUTLINE DIMENSIONS

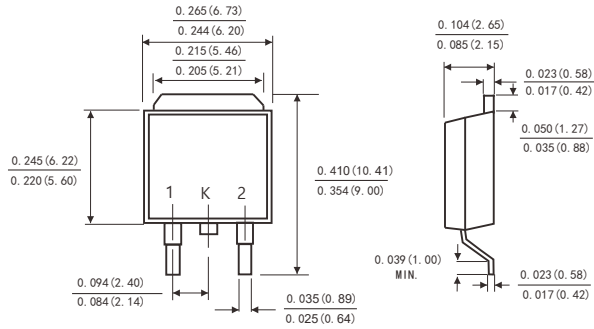
TO-220AC



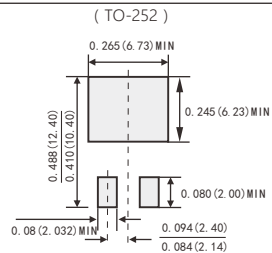
ITO-220AC



TO-252



Suggested Pad Layout



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