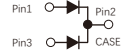
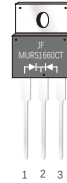


FEATURES

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



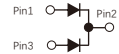
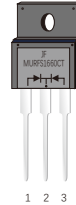
TO-220AB



MECHANICAL DATA

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

ITO -220AB



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

Parameter	Value
$I_{F(AV)}$	2×8A
V_R	600V
I_{FSM}	150A
V_f at $I_f=10A,125^\circ C$	1.40V
$T_{rr typ}$	20ns
T_{JMAX}	175°C
Diode variation	Double 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	$I_{F(AV)}$	16	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_L)	I_{FSM}	150	A
Operating junction temperature range	T_j	-55 to+175	°C
Storage temperature range	T_{sto}	-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	IR=200 μ A		V_{BR} V_R	600	-	-	V
Instaneous forward voltage	T _J =25 $^\circ$ C	IF=1A	V _F 1)	-	1.10	-	V
		IF=5A		-	1.50	-	
		IF=8A		-	1.70	2.00	
	T _J =125 $^\circ$ C	IF=1A		-	0.80	-	
		IF=5A		-	1.20	-	
		IF=8A		-	1.40	-	
Reverse current	T _J =25 $^\circ$ C	VR=600V	I _R 2)	-	0.1	10	μ A
	T _J =100 $^\circ$ C			-	5.0	-	μ A
	T _J =125 $^\circ$ C			-	15	-	
Junction capacitance	4V,1MHz		C _J	-	33	-	pF

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

2.Pulse test: pulse width \leq 40ms

DYNAMIC RECOVERY CHARACTERISTICS ($T_J=25^\circ\text{C}$ Unless otherwise noted)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	IF=0.5A, IR=1.0A, IRR=0.25A	trr	-	20	25	ns

THERMAL CHARACTERISTICS

Parameter	Symbol	TO-220AB	ITO-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	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Tube Length (mm)	Inner Box Number	Tube Number Per A Inner Box	Part Number Per A Tube	Quantity(carton) (K)
MURS1660CT-TO-220AB	Tube	565×225×170	548×151×37	540	5	20	50	5
MURFS1660CT-ITO-220AB	Tube	565×225×170	548×151×37	540	5	20	50	5

FIG.1-FORWARD CURRENT DERATING CURVE

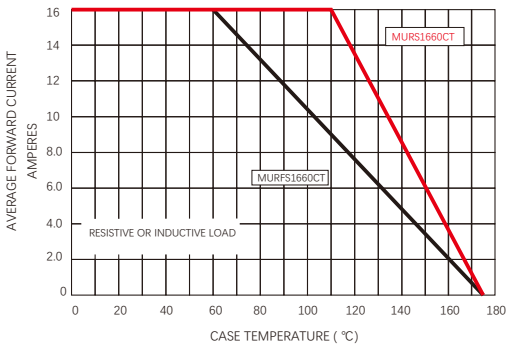


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

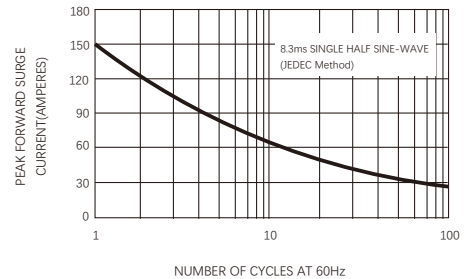
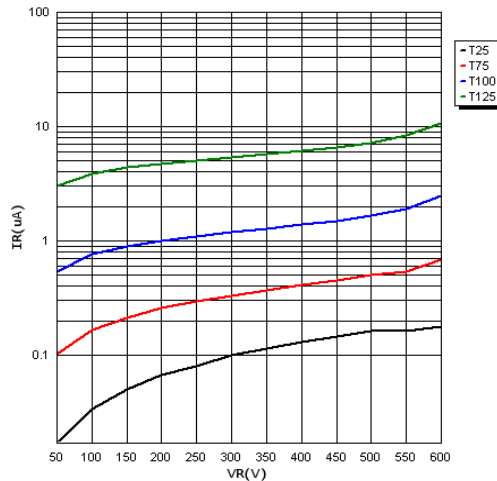
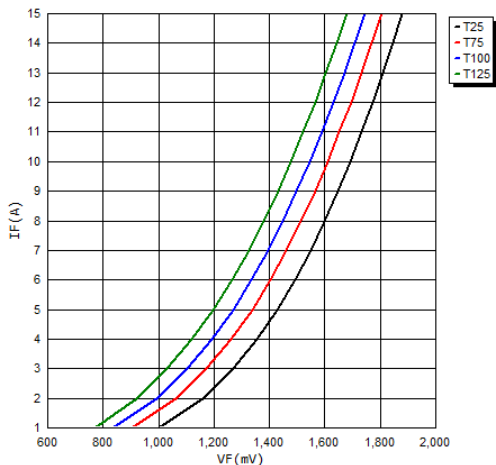


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

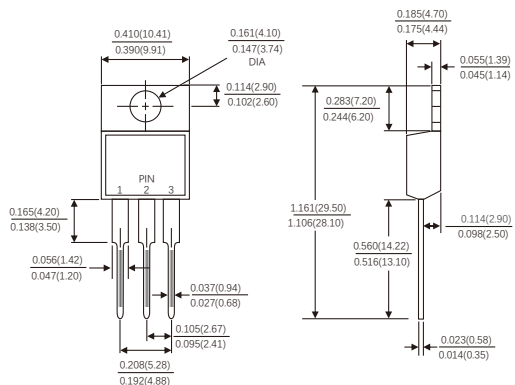
FIG.4-TYPICAL REVERSE CHARACTERISTICS



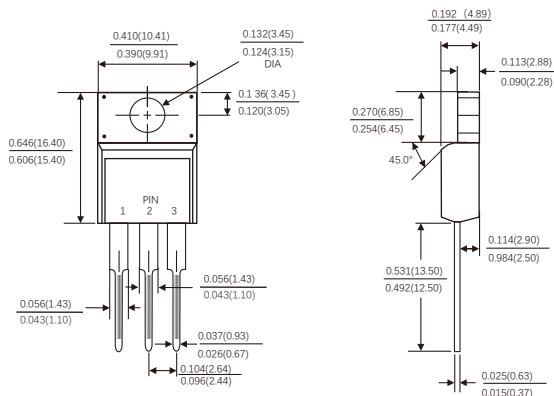
PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

TO-220AB



ITO-220AB



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