

ULTRAFST RECOVERY RECTIFIERS

Reverse Voltage - 200 V

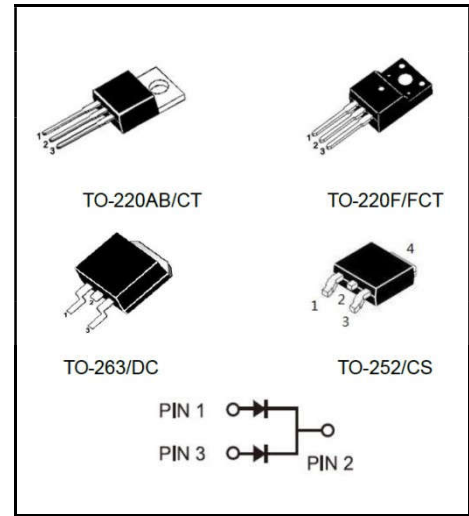
Forward Current - 12 A

Features

- ◆High speed switching capability
- ◆High current capability
- ◆High forward surge capability
- ◆Low power losses, High efficiency
- ◆For use in low voltage, high frequency inverters
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- ◆Case: TO-220AB/CT TO-220F/FCT TO-263/DC, TO-252/CS
- ◆Solder bath temperature 275°C maximum, 10s per JESD22-106



Primary Characteristic

I_o	2*6A
V_{RRM}	200V
I_{FSM}	100A
V_F	0.8V
T_J Max	150°C

Maximum Ratings (Per Leg) At Ta=25°C Unless Otherwise Specified

Parameter	Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC Blocking Voltage	V_{DC}	200	V
Maximum Average Forward Rectified Current	Per Leg	6	A
	Total	12	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave	I_{FSM}	100	A
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-40 ~ +150	°C
Typical Thermal Resistance (Note1)	R_{θJA}/ R_{θJC}	2/4	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) Unless Otherwise Specified

Characteristics	Symbols	Value		Units		
		Typ	Max			
Forward Voltage Drop(Note2)	V_F	at IF=2A	TA=25°C	0.81	V	
			TA=125°C	0.67		
		at IF=3A	TA=25°C	0.84		
			TA=125°C	0.71		
		at IF=6A	TA=25°C	0.92		0.97
			TA=125°C	0.80		
Maximum Reverse Current at V _R =200V	I_R	TA=25°C	0.02	1	uA	
		TA=125°C	5	-	uA	
Maximum Reverse Recovery Time at IF=0.5A, IR=1A, IRR=0.25A	T_{RR}	-		35	nS	

Note2: Pulse test: 300 μs pulse width, 1 % duty cycle

Ratings and Characteristic Curves

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

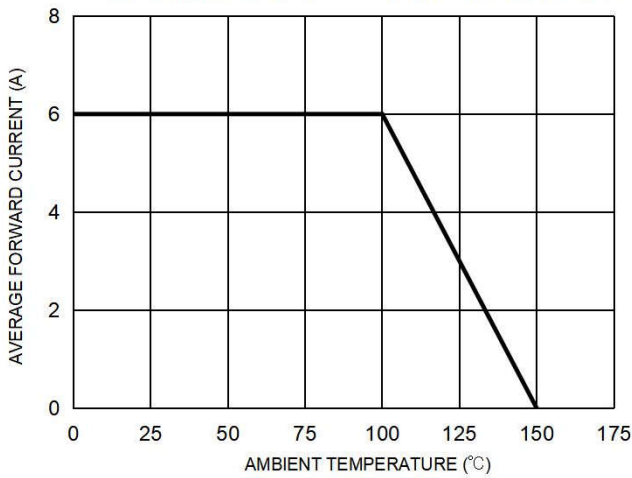


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

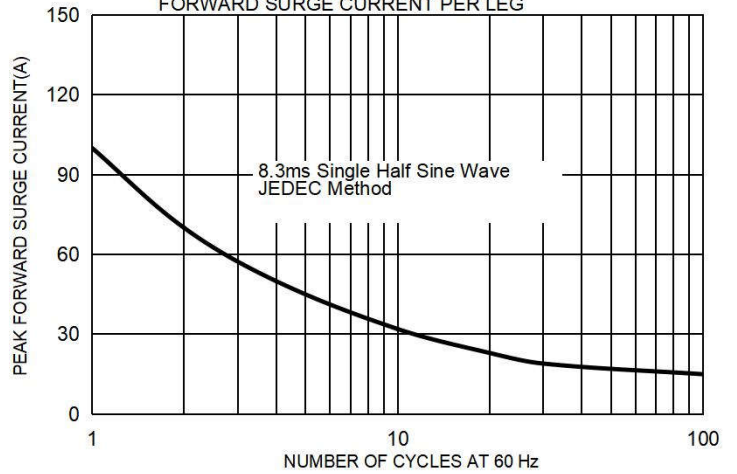


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

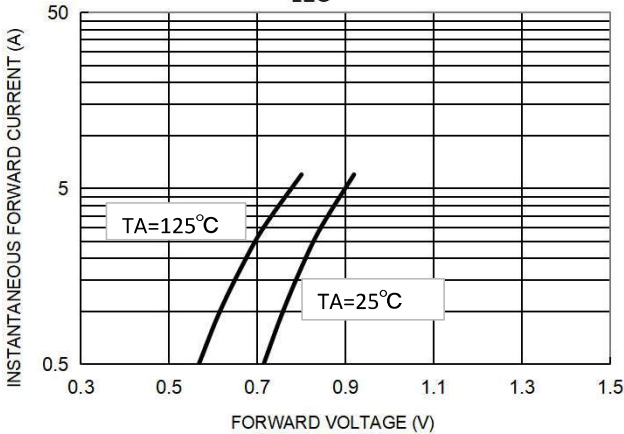
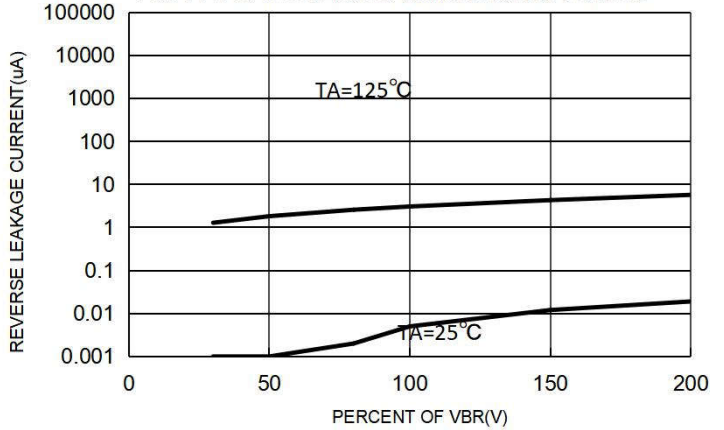
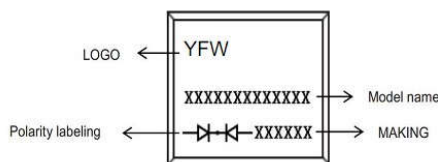


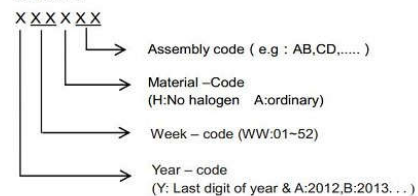
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



Marking on the body



MAKING:



Ordering information

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
MUR1220CT	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1220FCT	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1220DC-G	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
MUR1220DC	TO-263	0.04oz(1.16g)	800 pcs / reel	1600pcs/box4000pcs/carton
MUR1220CS	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs/box125000pcs/carton

Note: For Halogen Free molding compound, add "H" suffix to part number above.

Package Outline Dimensions Millimeters

TO-220AB

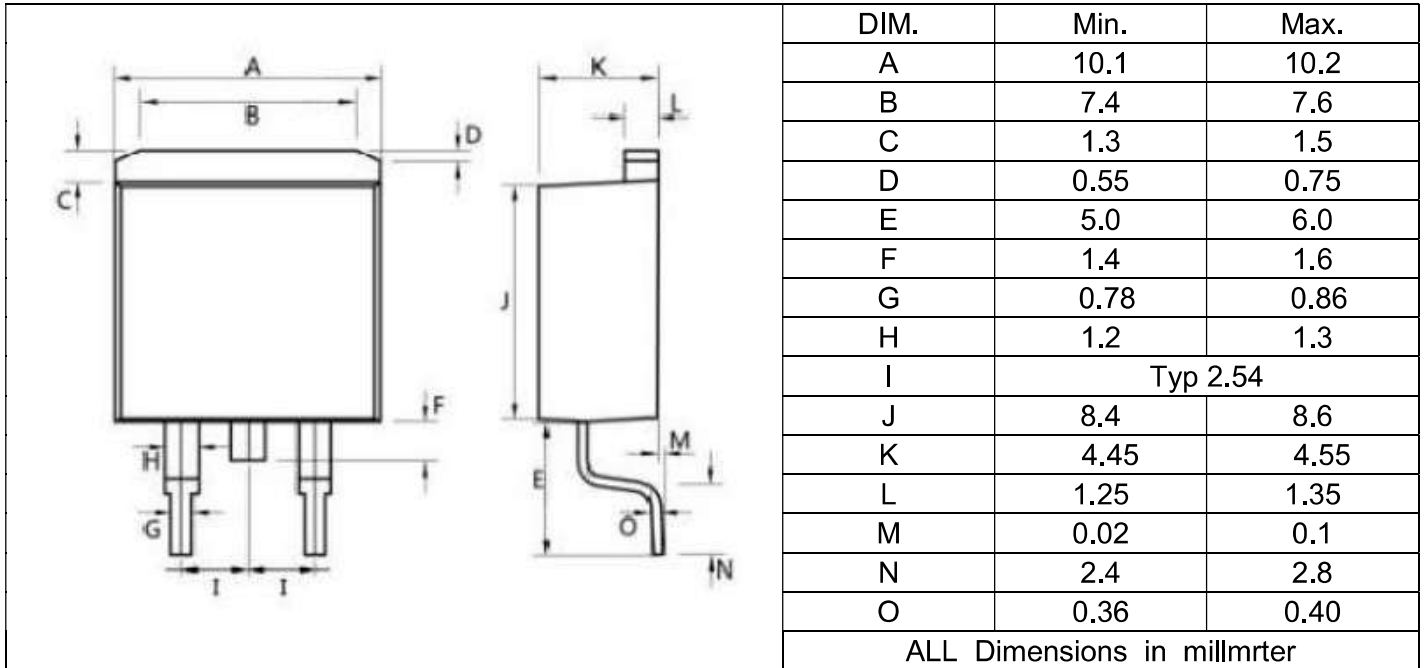
	Dim.	Min.	Max.
	A	10.15	10.35
	B	2.65	2.95
	C	3.70	3.90
	D	28.5	29.5
	E	1.30	1.45
	F	6.35	6.55
	G	2.9	3.3
	H	15.0	16.0
	I	0.38	0.42
	J	4.45	4.55
	K	1.25	1.35
	L	Typ 5.08	
	M	Typ 2.54	
N	3.1	3.3	
O	0.76	0.84	
All Dimensions in millimeter			

TO-220F

	Dim.	Min.	Max.
	A	9.95	10.25
	B	2.95	3.25
	C	1.25	1.45
	D	12.95	13.25
	E	0.50	0.65
	F	3.1	3.3
	G	1.30	1.45
	H	Typ 2.54	
	I	Typ 5.08	
	J	4.60	4.75
	K	2.50	2.65
	L	6.35	6.55
	M	15.4	16.0
	N	2.75	3.05
	O	0.48	0.52
P	0.76	0.84	
All Dimensions in millimeter			

Package Outline Dimensions Millimeters

TO-263



TO-252

