

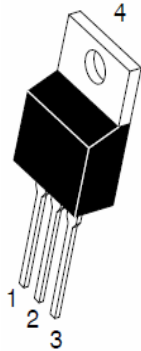
MUR1680CTR

MUR1680CTFR

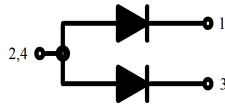
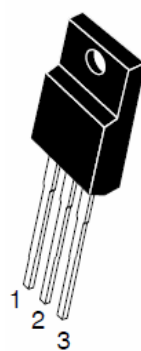
03-JUN-2018

Superfast Recovery Rectifier

MUR1680CTR
TO-220AB



MUR1680CTFR
TO-220F



Features

- Low forward voltage drop
- Low leakage
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability.

Mechanical Data

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.054ounce, 1.549gram

Parameter	Symbols	MUR1680CTR	MUR1680CTFR	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	800		V
Maximum RMS voltage	VRMS	560		V
Maximum DC Blocking Voltage	VDC	800		V
Maximum Average Forward Rectified Current	I(AV)	16.0		A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	Trr	35		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	150		A
I ² t rating for fusing (1ms< t < 10ms)	I ² t	112.5		A ² S
Maximum Forward Voltage at 8A and 25 °C	VF	1.8		V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=100 °C	IR	5 100		μA
Typical Junction Capacitance (Note1)	Cj	50		pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150		°C
Typical thermal resistance (Note 2)	RthJC	2.5	3	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.

Unit mounted on glass-epoxy substrate with 1oz/ft² 20x20 mm copper pad per pin with heatsink

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RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG1:Io -Tc Curve

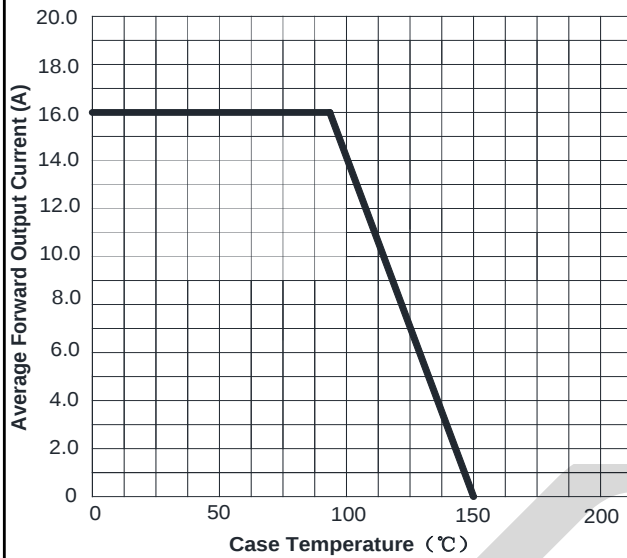


FIG2: Surge Forward Current Capability

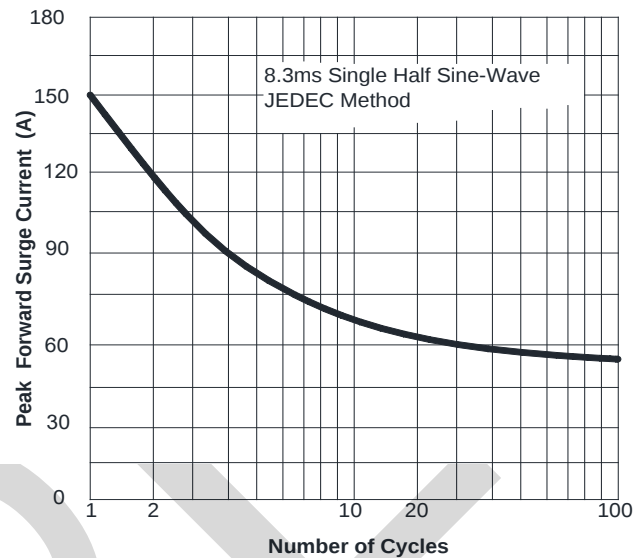


FIG3: Forward Voltage

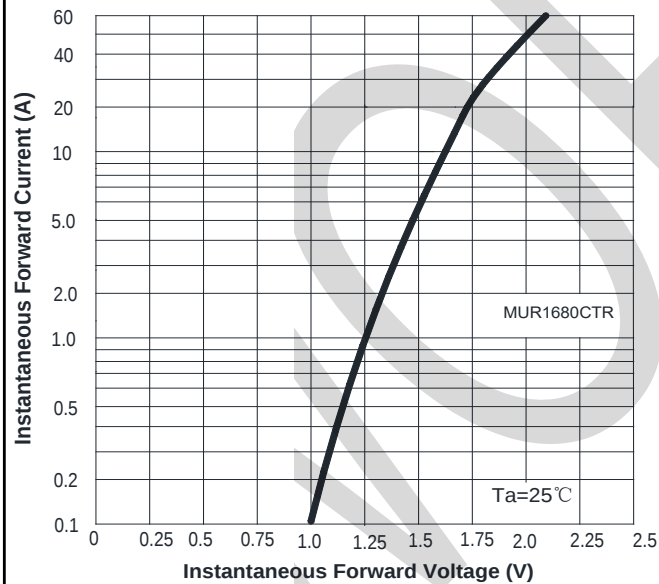
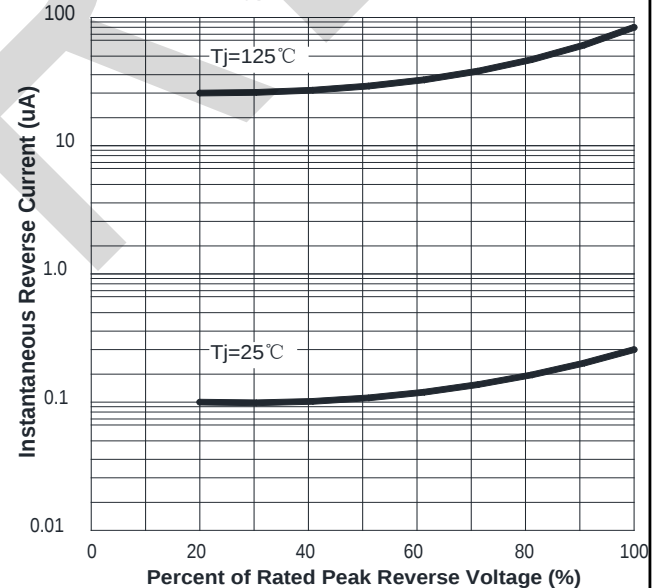


FIG4: Typical Reverse Characteristics



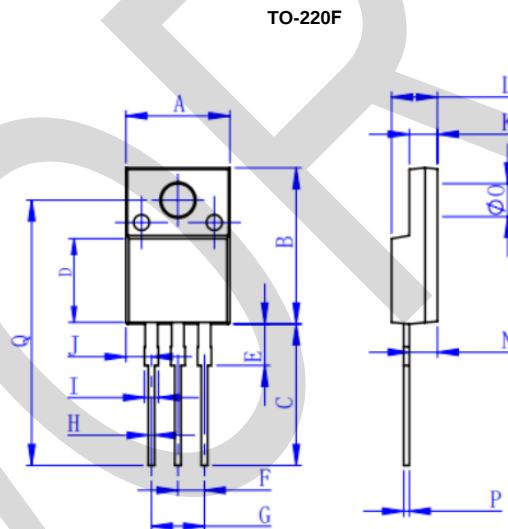
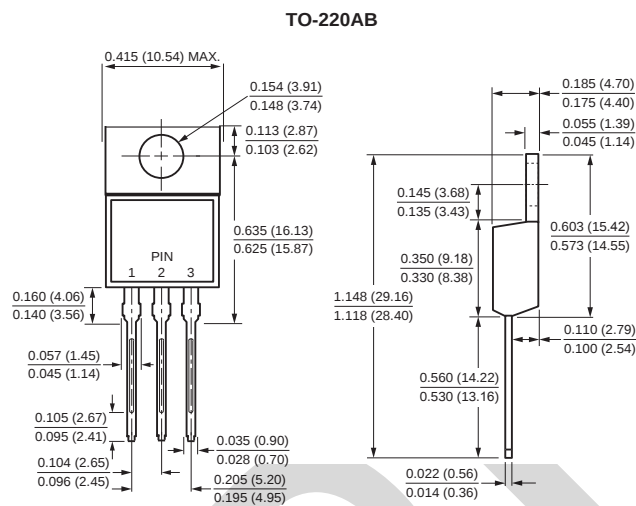
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PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)



TO-220F mechanical data

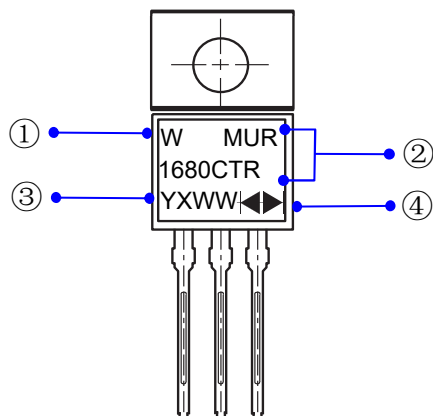
UNIT		A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
mm	min	9.8	14.8	13.4	7.5	3.8	2.35	4.9	0.5	1.25	2.3	2.5	4.2	2.5	3.1	0.5	25.2
	max	10.2	15.2	13.8	8.5	4.2	2.75	5.3	0.7	1.45	2.6	2.9	4.6	2.9	3.4	0.7	25.8
mil	min	385.8	582.6	527.5	295.2	149.6	92.5	192.9	19.6	49.2	90.5	98.4	165.3	98.4	122.0	19.6	992.1
	max	401.6	598.4	543.3	334.6	165.4	108.3	208.7	27.6	57.1	102.4	114.2	181.1	114.2	133.9	27.6	1015.8

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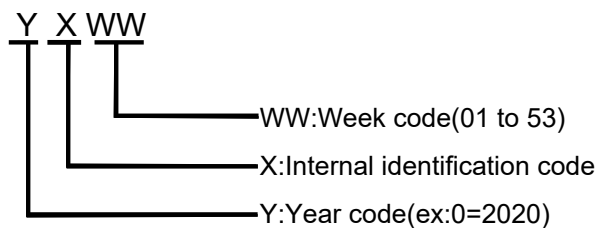
MUR1680CTFR

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Marking Information



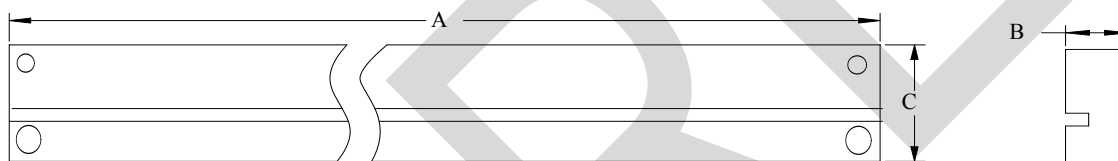
- ① W : Company's trademark
- ② Product model : MUR1680CTR or MUR1680CTFR
- ③ PDC information :



- ④  Double wafer

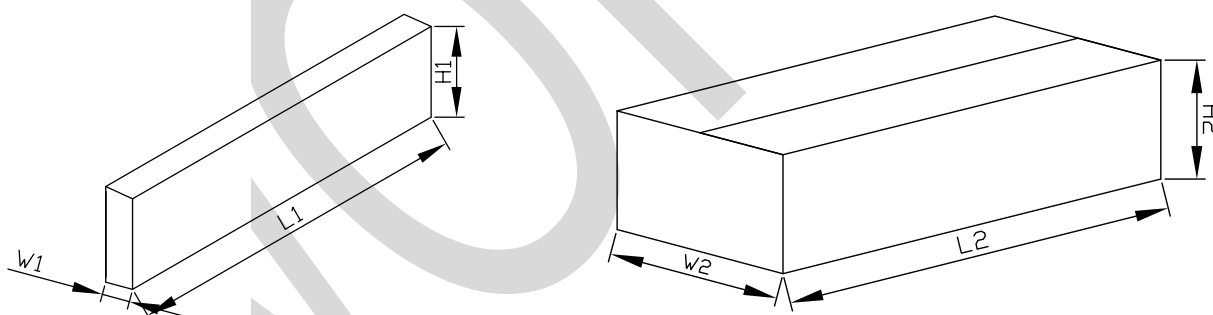
Packaging Information

1. Tube Dimensions



2. Inside Box

3. Outside Box



Packaging Information

NO	UNIT	Tube Dimensions			Inside Box			Outside Box		
Size	mm	A	B	C	L1	W1	H1	L2	W2	H2
		530	7	33	570	46	150	590	260	180
QTY	PCS	50PCS/Tube			Smallest package,1000PCS, 20 tube in total			5,000PCS/carton,5 boxes in total		
Note	Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm									