

# MUR2020FCT THRU MUR2060FCT

## SUPER FAST RECTIFIERS

Reverse Voltage - 200 to 600 Volts Forward Current - 20.0 Amperes

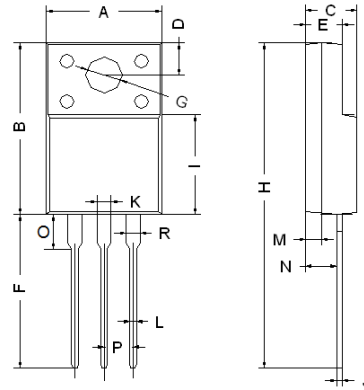
### FEATURES

- Low cost.
- Low leakage.
- Low forward voltage drop.
- High current capability.
- Easily cleaned with Alcohol, Isopropanol and Similar solvents.
- The plastic material carries U/L recognition 94V-0

### MECHANICAL DATA

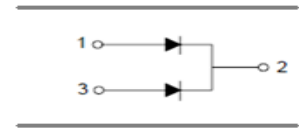
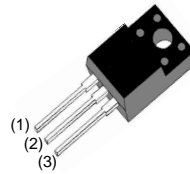
- Case: TO-220F
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

### TO-220F



TO-220F		
Dim	Min	Max
A	9.80	10.30
B	15.20	15.80
C	4.37	4.77
D	2.90	3.30
E	2.50	2.90
F	12.90	13.50
G	3.10	3.30
H	28.40	29.16
I	8.40	9.10
J	0.35	0.58
L	0.68	0.94
M	1.30	1.50
N	2.40	2.60
O	2.60	3.10
P	2.40	2.60
K/R	1.10	1.32

All Dimensions in mm

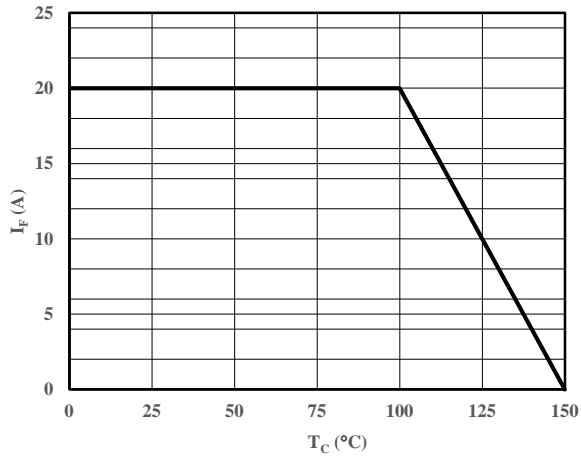


### MAXIMUM RATING operating temperature range applies unless otherwise specified

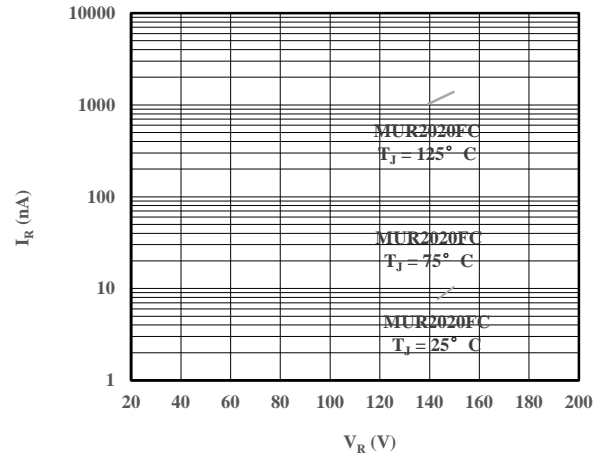
Symbol	Parameter	MUR2020 FCT	MUR2030 FCT	MUR2040 FCT	MUR2060 FCT	Unit
$V_{RRM}$	Reverse Peak Voltage	200	300	400	600	V
$V_{RMS}$	RMS Voltage	140	210	280	420	V
$V_{DC}$	DC Blocking Voltage	200	300	400	600	V
$I_{F(AV)}$	Average Forward Rectified Current @ $T_A=100^\circ C$	20.0				A
$I_{FSM}$	Peak Forward Surge Current 8.3ms Single Half-sine-wave superimposed on Rsted Load	100				A
$I_R$	Reverse Current $V_R=V_{RRM}, T_A=25^\circ C$ $V_R=V_{RRM}, T_A=150^\circ C$	5.0 250	10 500			$\mu A$
$V_F$	Forward Voltage $I_F=5A$	0.98	1.30	1.50		V
$t_{rr}$	Reverse Recovery Time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$	25	50			ns
$R_{\theta JC}$	Typical Thermal Resistance Junction to Case	7.0				$^\circ C/W$
$T_j, T_{stg}$	Operating Junction and Storage Temperature Range	-55 to +150				$^\circ C$

Note 1: The data tested by surface mounted on a 4.15cm \* 5.4cm \* 0.25cm aluminum heatsink

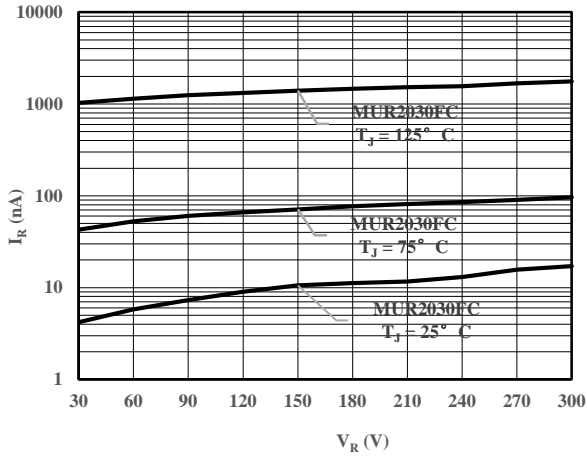
## Ratings and Characteristics Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)



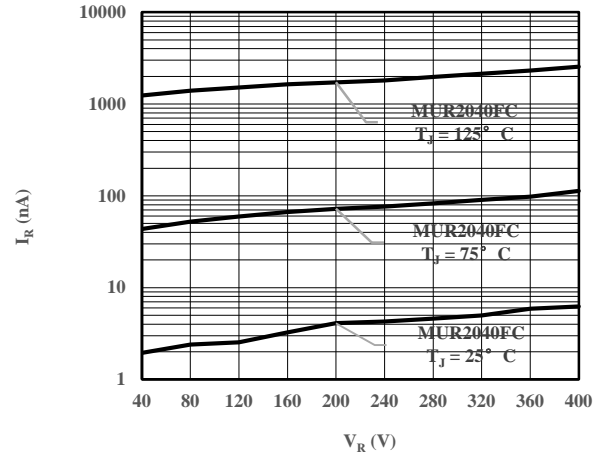
**Fig 1 Current Derating Curve**



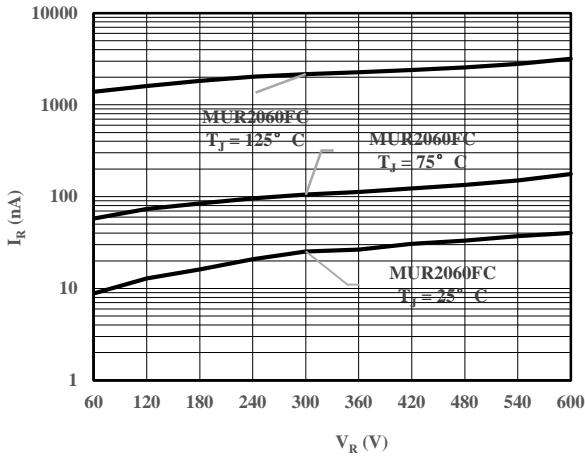
**Fig 2 Typical Reverse Characteristic**



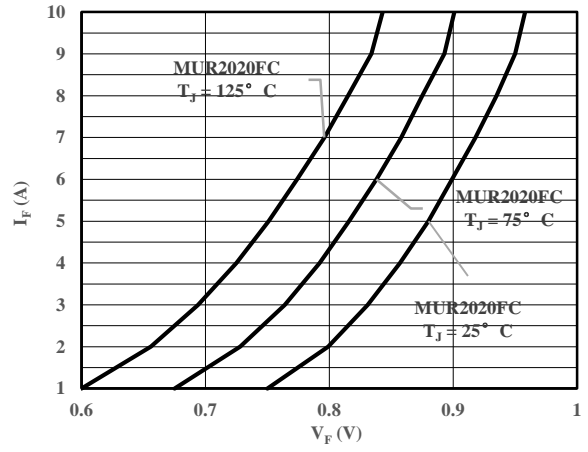
**Fig 3 Typical Reverse Characteristic**



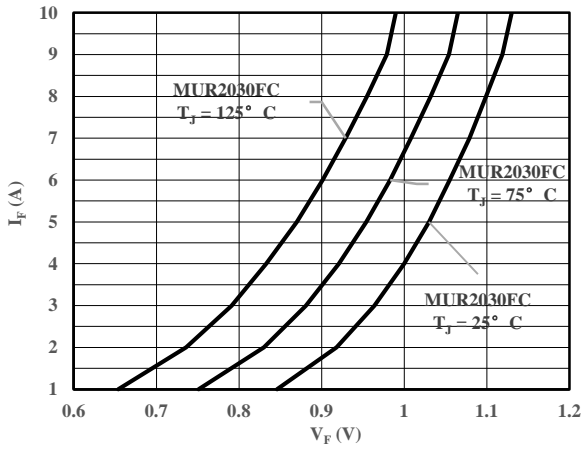
**Fig 4 Typical Reverse Characteristic**



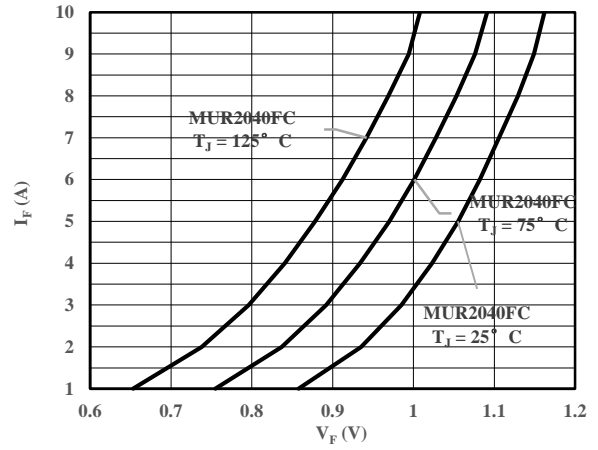
**Fig 5 Typical Reverse Characteristic**



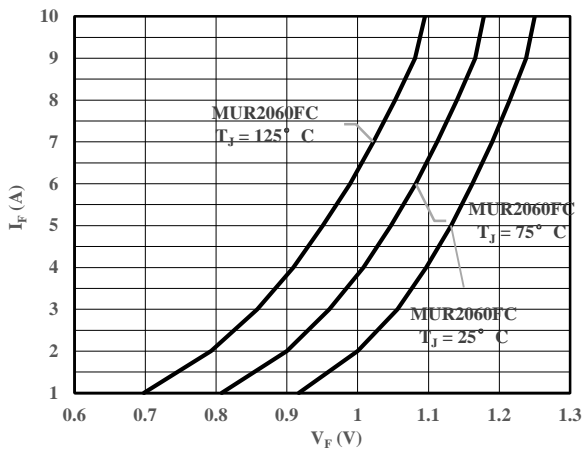
**Fig 6 Typical Forward Characteristic**



**Fig 7 Typical Forward Characteristic**



**Fig 8 Typical Forward Characteristic**



**Fig 9 Typical Forward Characteristic**