



MUR1060CT/MUR1060CTR MUR1060FCT/MUR1060FCTR

Ultra-Fast Recovery Diodes 5A*2 Pt



Features

- Adopt FRD chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

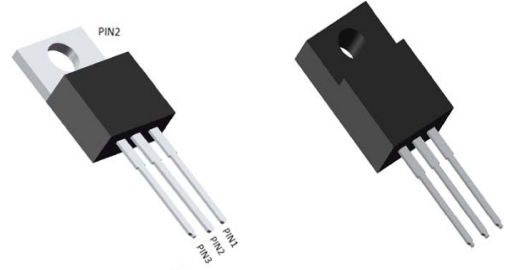
Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-220AB
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

TO-220AB

ITO-220AB/TO-220F



MUR1060CT(TO-220AB)
MUR1060FCT(TO-220F)

MUR1060CTR(TO-220AB)
MUR1060FCTR(TO-220F)

■Maximum Ratings (Ta=25°C Unless otherwise specified)

TYPE	V _{RSM} V	V _{RRM} V
MUR1060CT/CTR MUR1060FCT/FCTR	600	600

PARAMETER	SYMBOL	UNIT	MUR1060CT/MUR1060CTR/MUR1060FCT/MUR1060FCTR
Device marking code			MUR1060CT/MUR1060CTR/MUR1060FCT/MUR1060FCTR
Repetitive Peak Reverse Voltage	V _{RRM}	V	600
Average Rectified Output Current @60Hz sine wave, R-load, T _C (FIG.1)	I _O	A	10
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _J =25°C	I _{FSM}	A	120
Current Squared Time @1ms≤t≤8.3ms T _J =25°C,	I ² t	A ² s	10
Storage Temperature	T _{stg}	°C	-55 ~ +175
Junction Temperature	T _J	°C	-55 ~ +175
Typical Junction capacitance @4V,1MHz	C _J	pF	20

■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	$I_{FM}=5.0A @T_j=25^{\circ}C$	-	1.55	1.75
			$I_{FM}=5.0A @T_j=150^{\circ}C$		1.45	1.6
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	$V_{RM}=V_{RRM}$ $T_j=25^{\circ}C$	-	-	5.0
	I_{RRM2}		$V_{RM}=V_{RRM}$ $T_j=150^{\circ}C$	-	35	200
Reverse Recovery Time	T_{rr}	ns	$I_F=0.5A I_{RM}=1A$ $I_{RR}=0.25A T_j=25^{\circ}C$	-	35	50
			$T_j=25^{\circ}C$	-	50.8	-
			$T_j=125^{\circ}C$	-	81.8	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}C$	-	3.06	-
			$T_j=125^{\circ}C$	$I_F=5A$ $di/dt=-200A/us$ $V_{RM}=200V$	-	5.07
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}C$	-	78.88	-
			$T_j=125^{\circ}C$	-	280	-

■Thermal Characteristics ($T_j=25^{\circ}C$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MUR1060CT/CTR
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}C/W$	2.0
Thermal Resistance	Between junction and Air	$R_{\theta J-A}$	$^{\circ}C/W$	50

■Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR1060CT/CTR MUR1060FCT/FCTR	Approximate 1.88	50	1000	5000	Tube

■Characteristics (Typical)

FIG1: I_o - T_c Curve

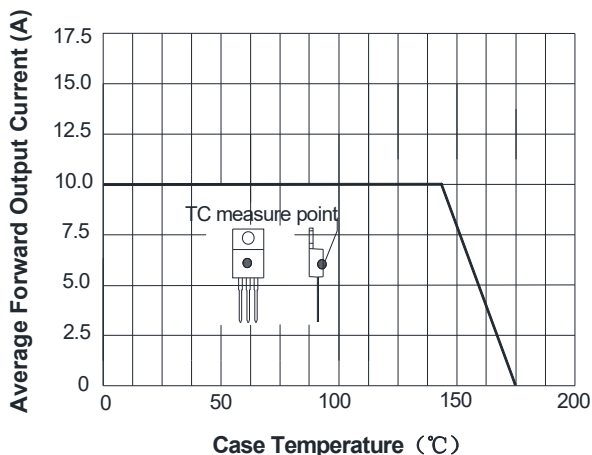


FIG2: Surge Forward Current Capability

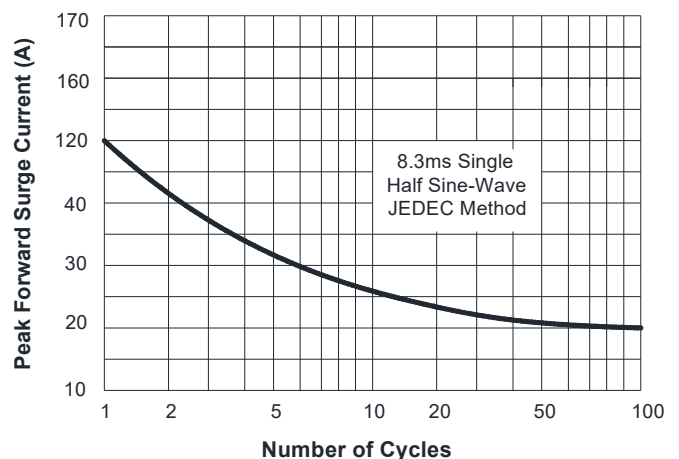
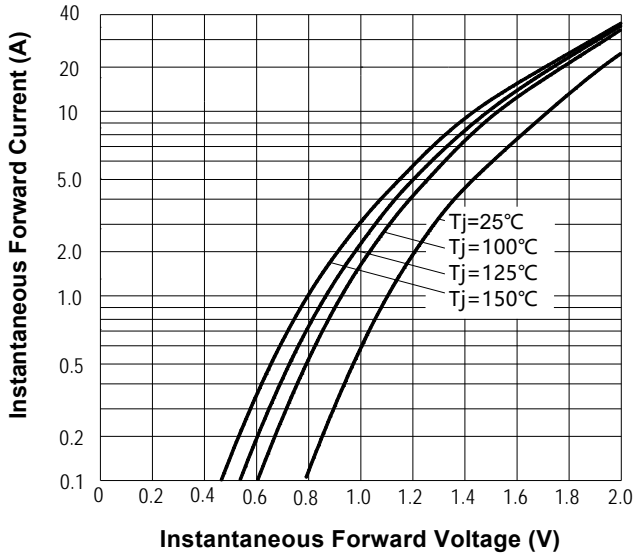
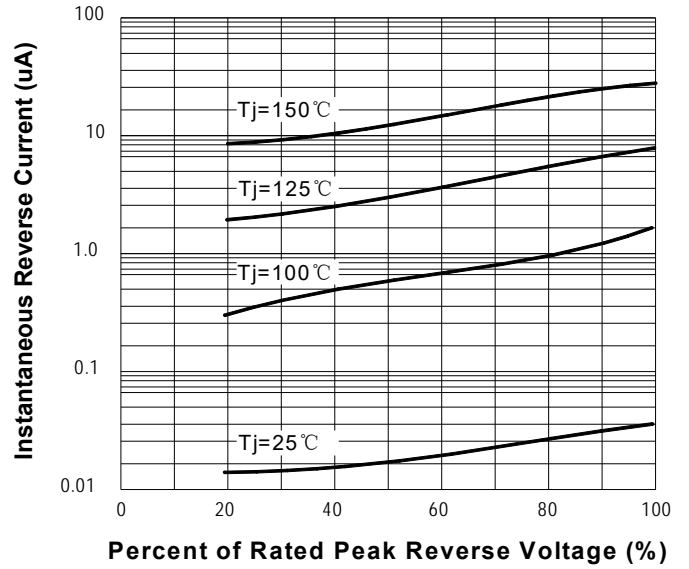
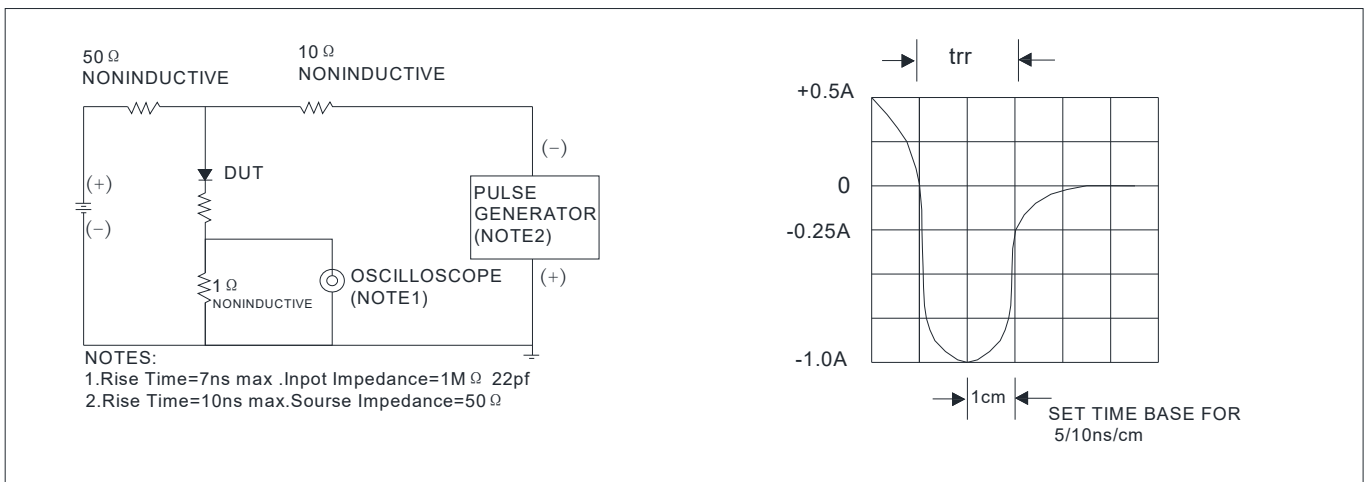
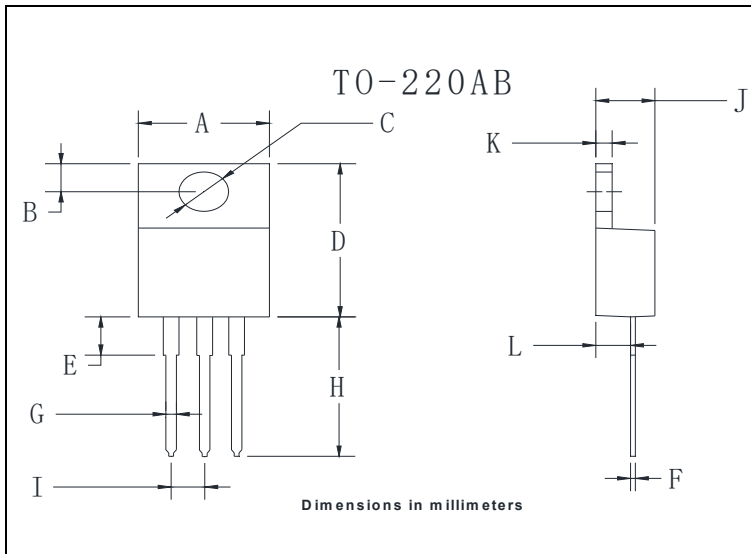
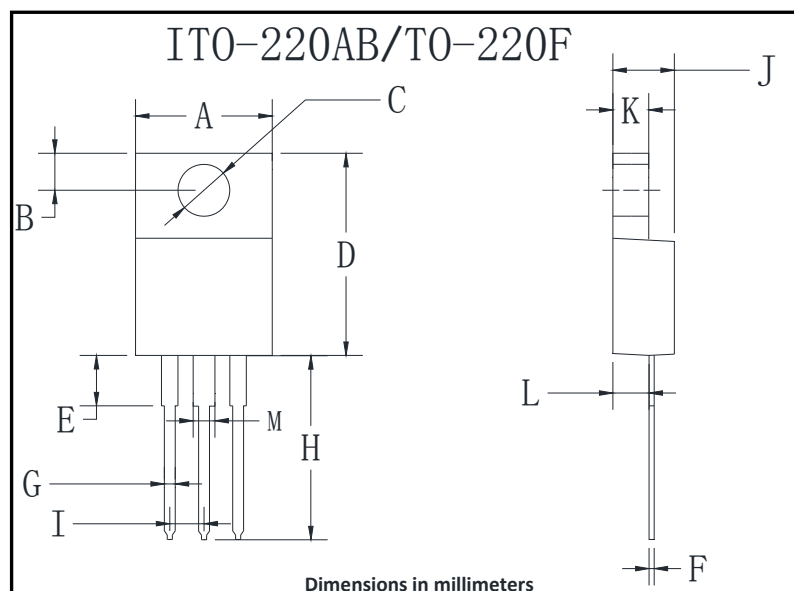


FIG3: Forward Voltage

FIG.4: Instantaneous Reverse Characteristics

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time


■ Outline Dimensions



TO-220AB		
Dim	Min	Max
A	9.95	10.35
B	2.55	2.95
C	3.8	4.0
D	14.95	15.25
E	3.75	4.25
F	0.26	0.5
G	0.68	0.94
H	13.4	13.9
I	2.35	2.65
J	4.38	4.78
K	1.14	1.4
L	2.37	2.79



ITO-220AB/TO-220F		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.05	3.95
F	0.45	0.75
G	0.45	0.75
H	13.4	14.2
I	2.35	2.75
J	4.3	4.8
K	2.58	2.82
L	2.58	2.82
M	1.47	1.77

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