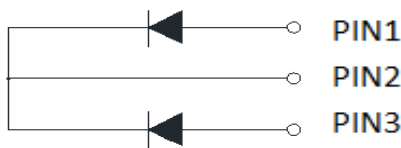
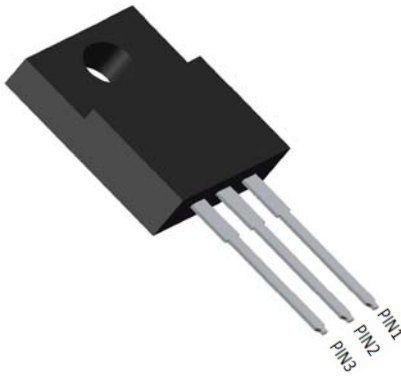


Ultra-Fast Recovery Diodes 5A*2 FRED



Features

- Adopt FRED 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:** ITO-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

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

PARAMETER	SYMBOL	UNIT	MUR1060FCT-B1-W5038HF
Device marking code			MUR1060FCT
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	50
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
Mounting torque @recommend torque: 5kg·cm	Tor	kg·cm	8



MUR1060FCT-B1-W5038HF

■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	$I_{FM}=5.0A @T_j=25^{\circ}C$	-	1.45	1.6
			$I_{FM}=5.0A @T_j=150^{\circ}C$		1.15	1.3
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	$I_F=0.5A I_{RM}=1A$ $I_{RR}=0.25A T_j=25^{\circ}C$	-	25	35
			$T_j=25^{\circ}C$	-	50.8	-
			$T_j=125^{\circ}C$	-	81.8	-
Peak recovery current	I_{RRM}	A	$T_j=25^{\circ}C$	-	3.06	-
			$T_j=125^{\circ}C$			
Reverse recovery charge	Q_{rr}	nC	$T_j=25^{\circ}C$	-	78.88	-
			$T_j=125^{\circ}C$			

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

PARAMETER		SYMBOL	UNIT	MUR1060FCT-B1-W5038HF
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^{\circ}C/W$	4.0
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
MUR1060FCT-B1-W5038HF	Approximate 1.6	50	1000	5000	Tube



MUR1060FCT-B1-W5038HF

■ Characteristics (Typical)

FIG1: I_o - T_c Curve

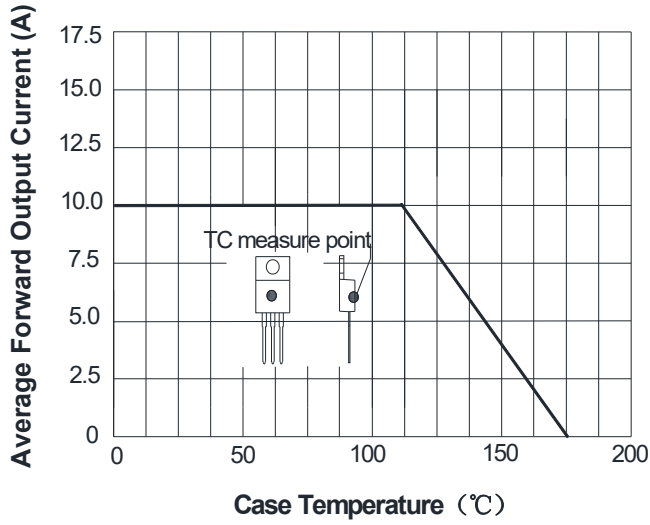


FIG2: Surge Forward Current Capability

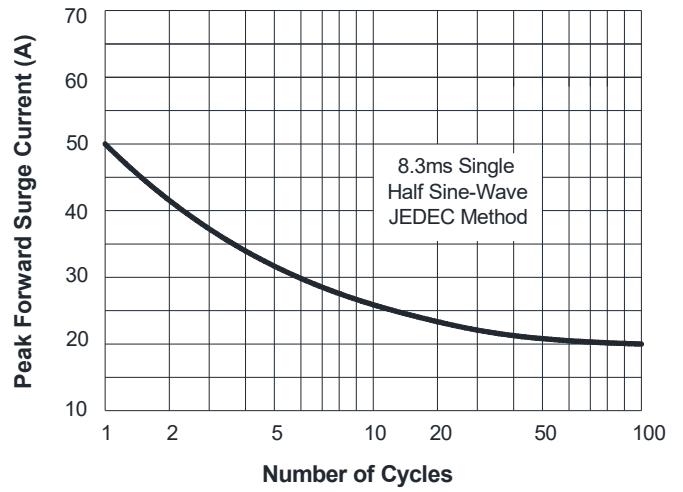


FIG3: Forward Voltage

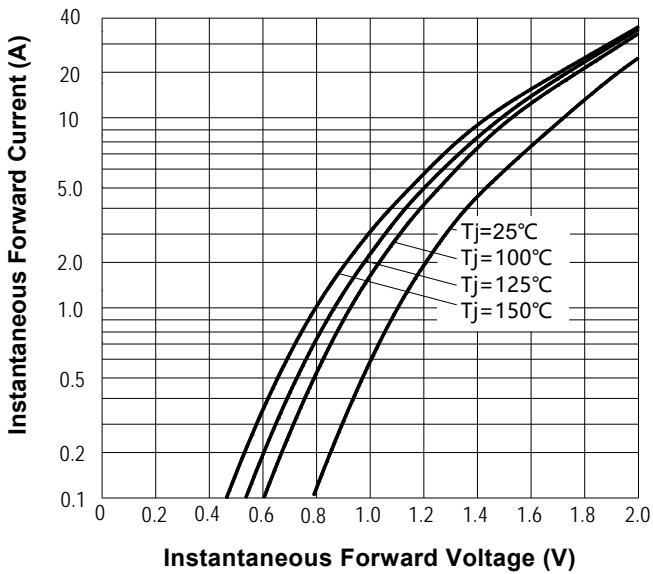
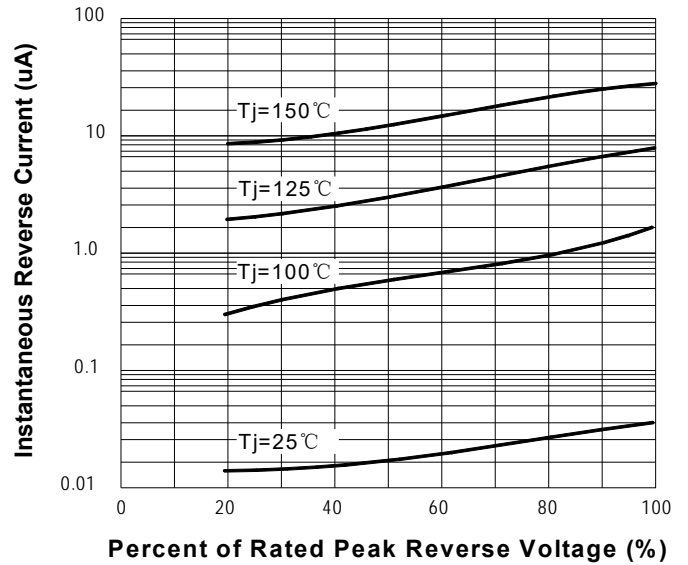


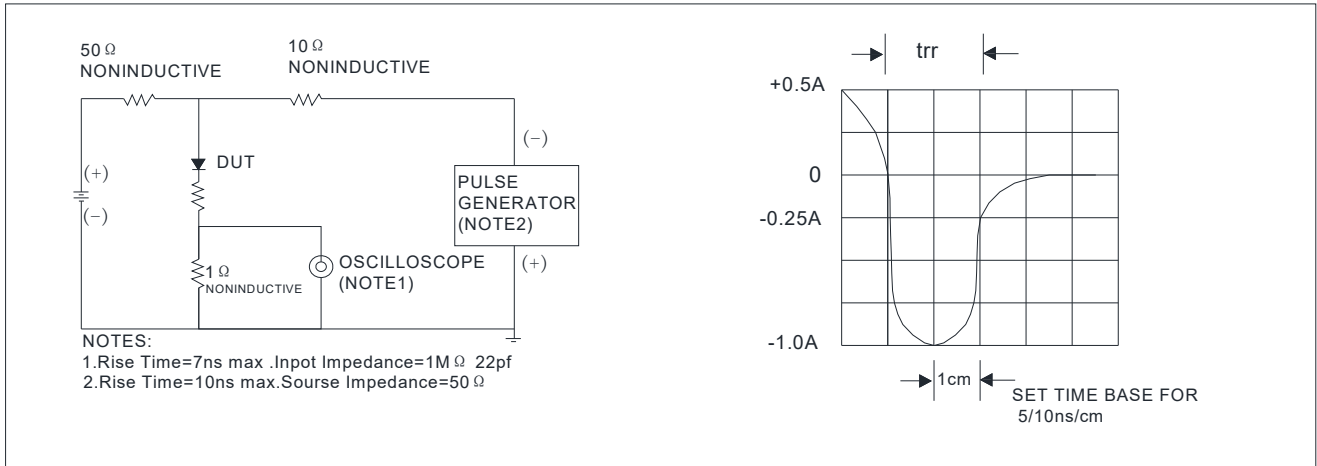
FIG4: Instantaneous Reverse Characteristics



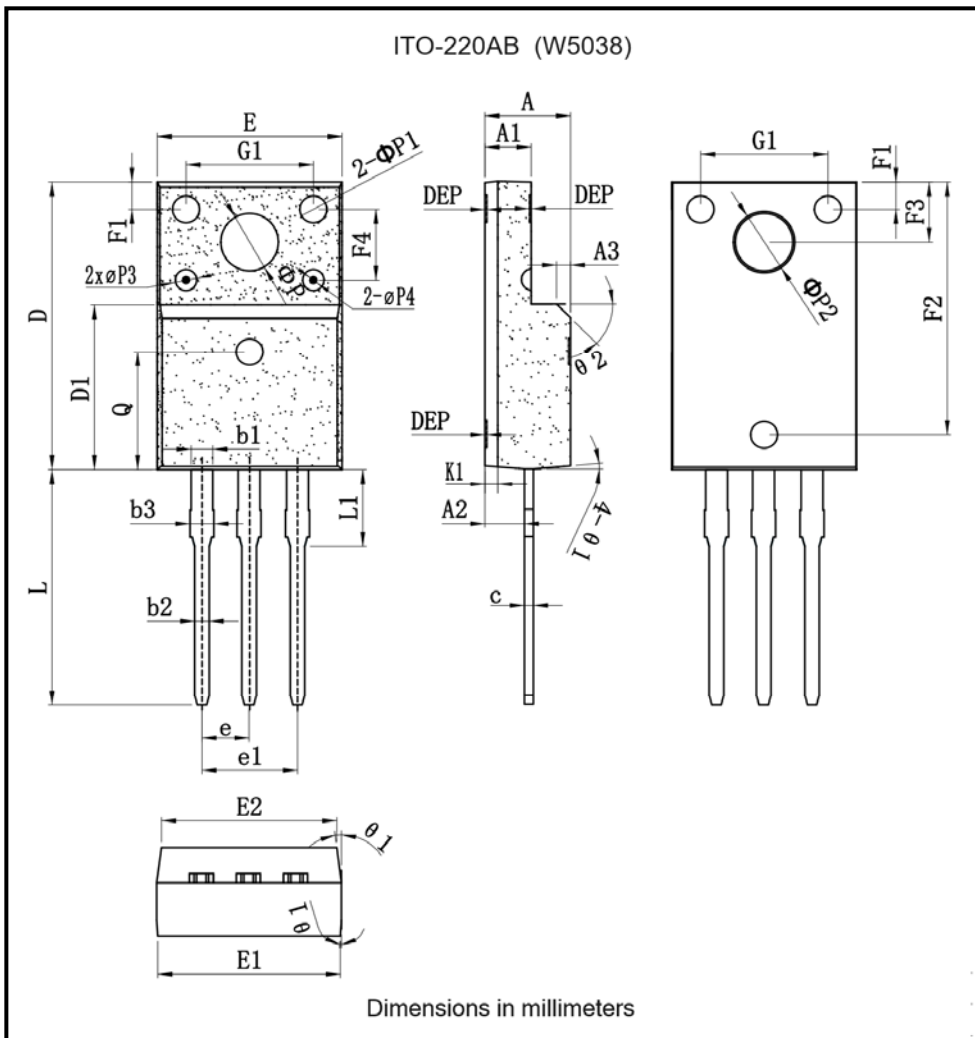


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FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



Outline Dimensions



ITO-220AB (W5038)		
Dim	Min	Max
A	4.50	4.90
A1	2.34	2.74
A2	2.66	2.86
A3	1.0 REF	
b1	1.18	1.24
b2	0.75	0.85
b3	1.22	1.38
C	0.45	0.55
D	15.67	16.07
D1	9.04	9.20
e	2.50	2.58
e1	5.08 REF	
E	10.00	10.30
E1	9.94	10.20
E2	9.40	9.60
F1	1.40	1.60
F2	13.80	14.00
F3	3.20	3.40
F4	3.70	4.10
G1	6.90	7.10
K1	0.65	0.75
L	12.78	13.18
L1	3.40	3.60
Q	6.50 REF	
ΦP	3.08	3.28
ΦP1	1.45	1.65
ΦP2	3.30	3.50
ΦP3	0.95	1.35
ΦP4	0.25	0.35
θ1	3°	7°
θ2	42°	48°
DEP	0.05	0.15



MUR1060FCT-B1-W5038HF

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