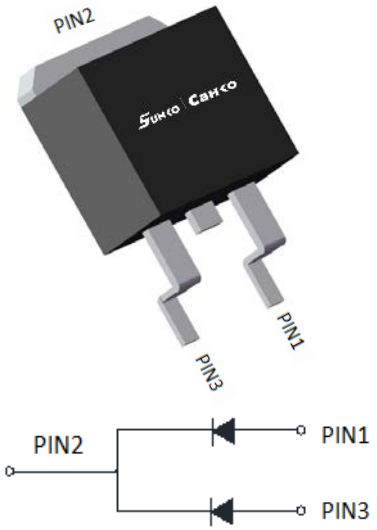
MURB1060CT-F2-W5094HF

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**: TO-263
  Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity**: As marked

■Maximum Ratings (Tj=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MURB1060CT
Device marking code			MURB1060CT
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℃	I_{FSM}	A	50
Current Squared Time @1ms≤t≤8.3ms Tj=25℃,	I^2t	A^2s	10
Storage Temperature	Tstg	℃	-55 ~ +175
Junction Temperature	Tj	℃	-55 ~ +175
Typical Junction capacitance @4V,1MHz	Cj	pF	20

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■Electrical Characteristics

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS		Min	Typ	Max
Instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=5.0A @Tj=25℃		-	1.45	1.6
			I_{FM}=5.0A @Tj=150℃			1.15	1.3
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	V_{RM}=V_{RRM} Tj=25℃		-	-	5.0
	I_{RRM2}		V_{RM}=V_{RRM} Tj=150℃		-	35	200
Reverse Recovery Time	Trr	ns	I_F=0.5A I_{RM}=1A I_{RR}=0.25A Tj=25℃		-	25	35
			Tj=25℃	IF=5A di/dt=-200A/us V_{RM}=200V	-	50.8	-
			Tj=125℃		-	81.8	-
Peak recovery current	I_{RRM}	A	Tj=25℃		-	3.06	-
			Tj=125℃		-	5.07	-
Reverse recovery charge	Qrr	nC	Tj=25℃		-	78.88	-
			Tj=125℃		-	280	-

■Thermal Characteristics （Tj=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	MURB1060CT
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W	2.0
Thermal Resistance	Between junction and Air	$R_{\theta J-A}$	℃/W	50

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MURB1060CT	Approximate 1.43	800	/	8000	13° Reel

■Characteristics (Typical)

FIG1:Io -Tc Curve

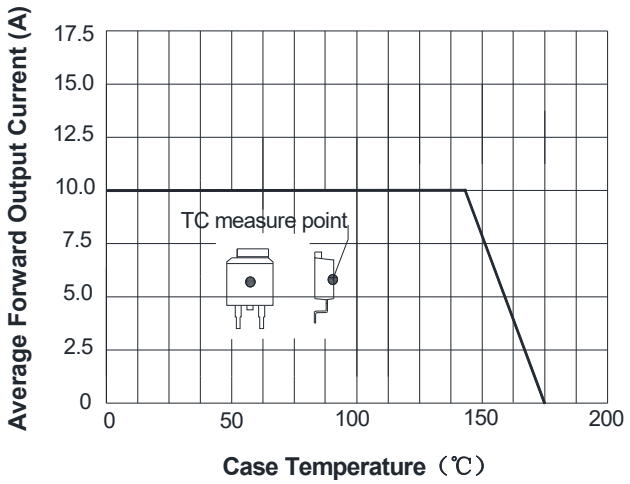


FIG2:Surge Forward Current Capability

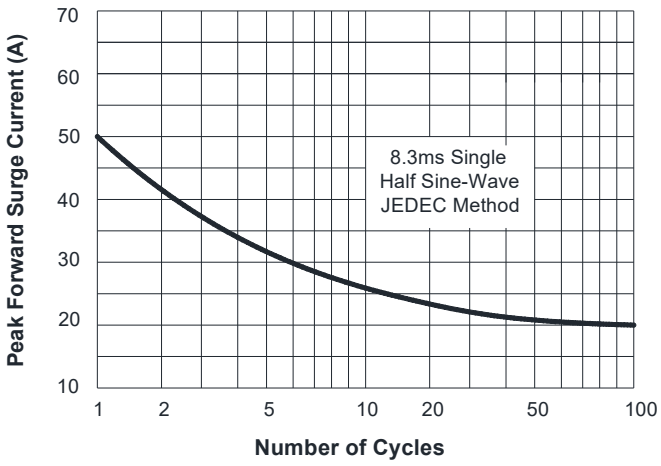


FIG3: Forward Voltage

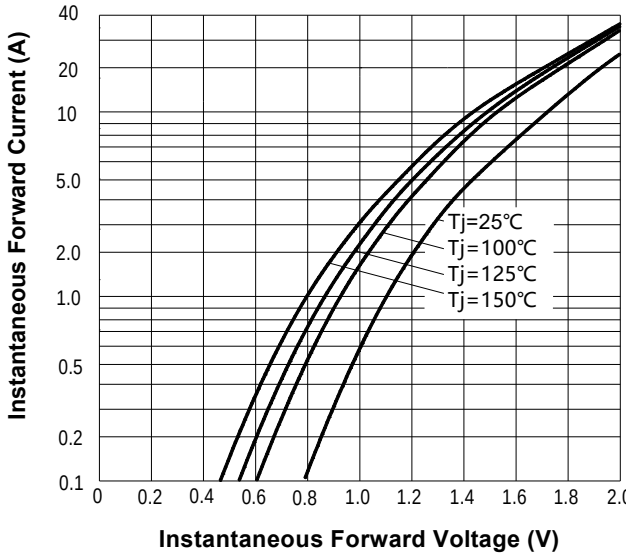


FIG.4: Instantaneous Reverse Characteristics

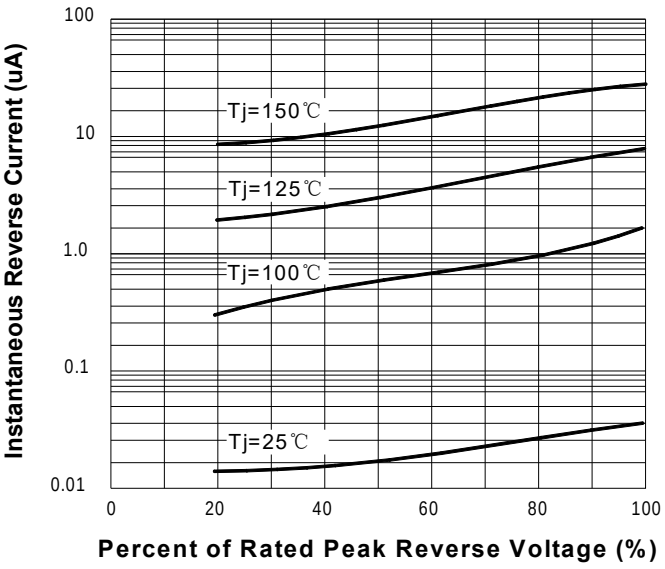
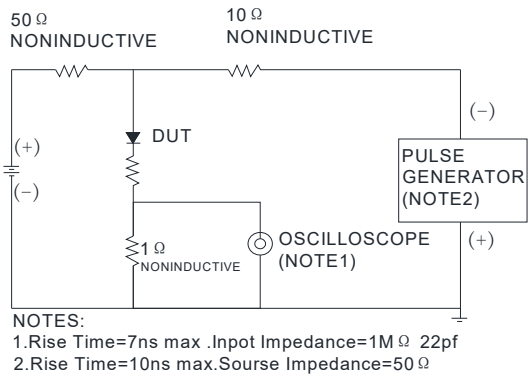
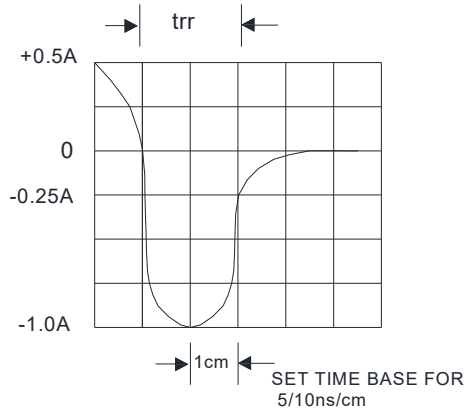
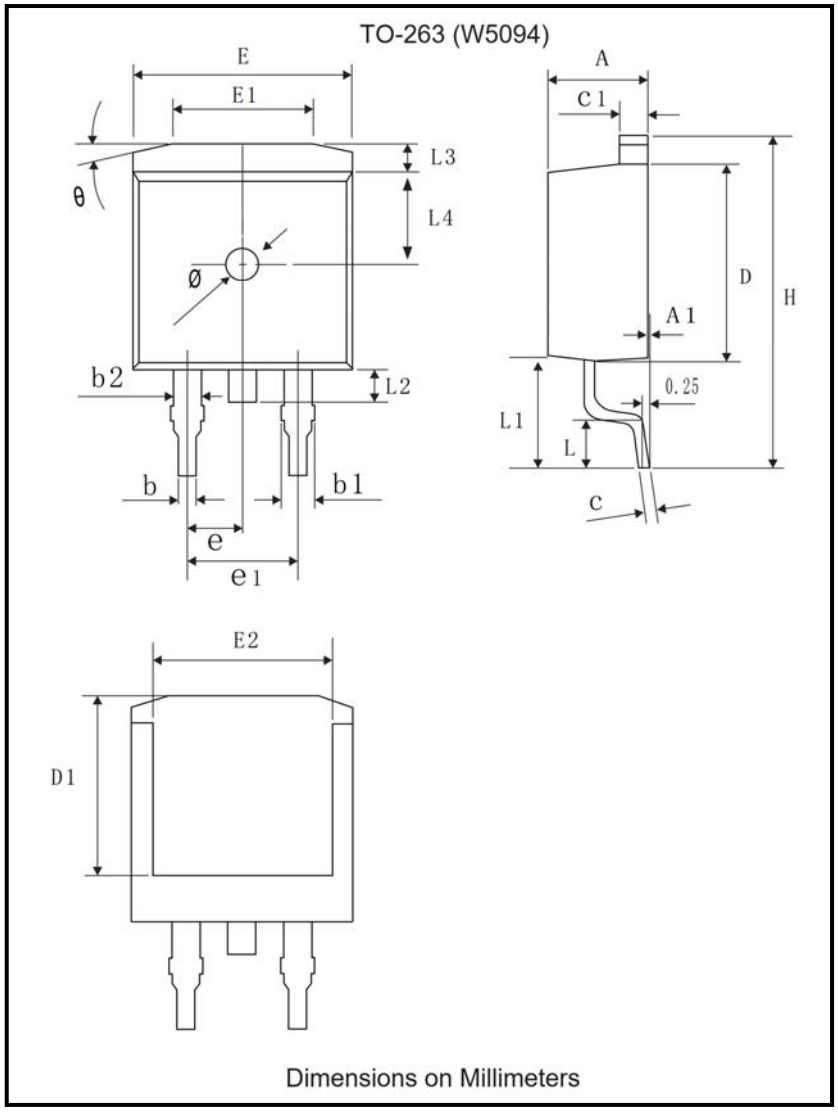


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



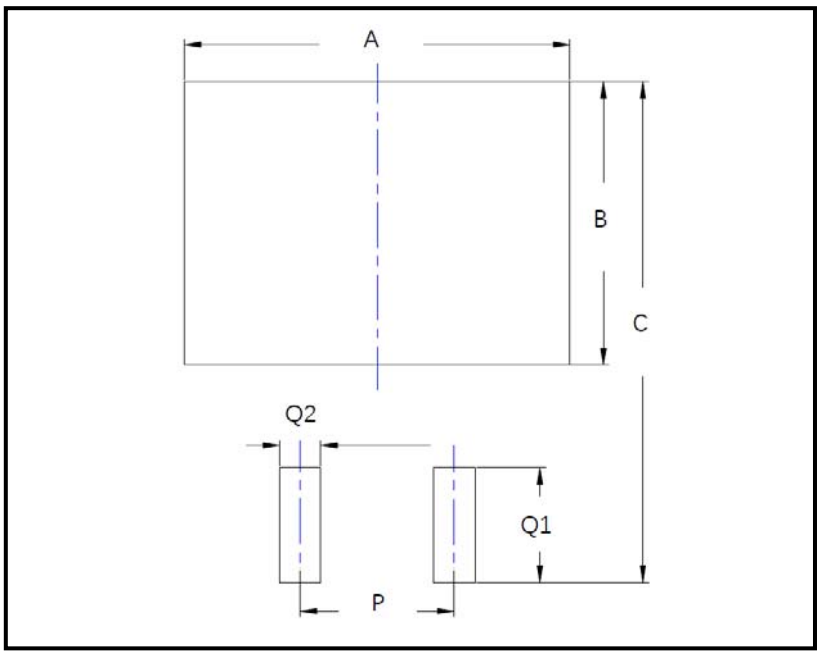


■Outline Dimensions



TO-263		
Dim	Min	Max
A	4.30	4.70
A1	0.00	0.25
b	0.70	0.90
B1	1.17	1.37
B2	1.17	1.37
C	0.40	0.60
C1	1.25	1.35
D	9.00	9.20
D1	8.00	8.20
H	14.9	15.5
E	9.80	10.2
E1	6.30	6.50
E2	7.90	8.10
e1	4.93	5.23
L	1.85	2.45
L1	4.45	4.85
L2	1.30	1.70
L3	1.15	1.35
L4	4.50	4.60
Ø	1.5 REF	
e	2.54 BSC	
θ	13°TYP	

■ Suggested Pad Layout



Dim	Millimeters
A	12.7
B	9.4
C	16.6
P	5.08
Q1	3.8
Q2	1.35

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