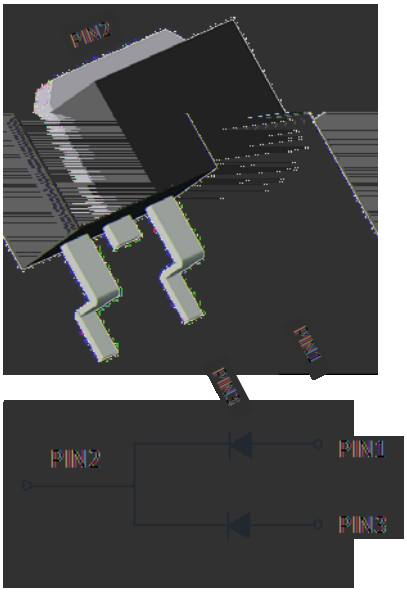
RoHS
COMPLIANT



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

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

■ (Tj=25℃ Unless otherwise specified)

Device marking code			MURB1620CT
Repetitive Peak Reverse Voltage	V_{RRM}	V	200
Average Rectified Output Current @60Hz sine wave, R-load, T_C(FIG.1)	I_O	A	16
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T_j=25℃	I_{FSM}	A	100
Current Squared Time @1ms≤t≤8.3ms Tj=25℃,	I^2t	A^2s	41
Storage Temperature	T_{stg}	℃	-55 ~ +175
Junction Temperature	T_j	℃	-55 ~ +175
Typical Junction capacitance @4V,1MHz	Cj	pF	70

■

Instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=8.0A @Tj=25℃		-	0.90	1.0
			I_{FM}=8.0A @Tj=150℃			0.78	0.9
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	uA	V_{RM}=V_{RRM} Tj=25℃		-	-	5
	I_{RRM2}		V_{RM}=V_{RRM} Tj=150℃		-	20	50
Reverse Recovery Time	Trr	ns	I_F=0.5A I_{RM}=1A I_{RR}=0.25A Tj=25℃		-	25	35
			Tj=25℃	IF=8A di/dt=-200A/us V_{RM}=100V	-	19.7	-
			Tj=125℃		-	35.9	-
Peak recovery current	I_{RRM}	A	Tj=25℃		-	3.73	-
			Tj=125℃		-	6.61	-
Reverse recovery charge	Qrr	nC	Tj=25℃		-	42.7	-
			Tj=125℃		-	120	-

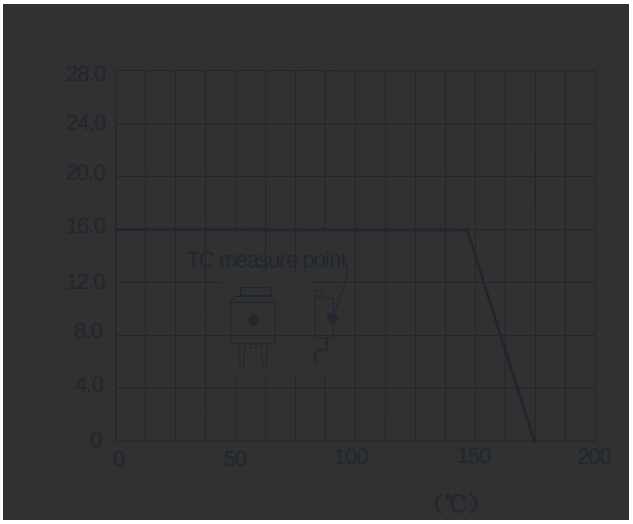
■ （Tj=25℃ Unless otherwise specified）

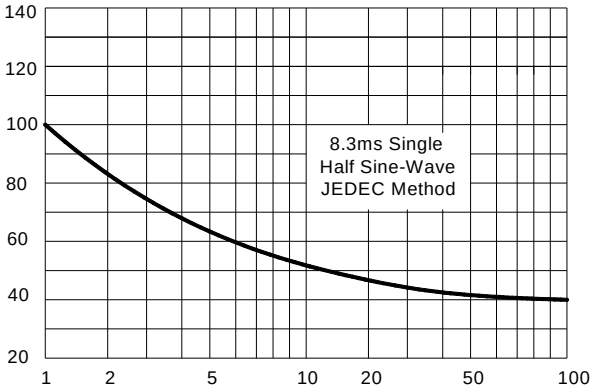
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W	2.0
Thermal Resistance	Between junction and Air	$R_{\theta J-A}$	℃/W	50

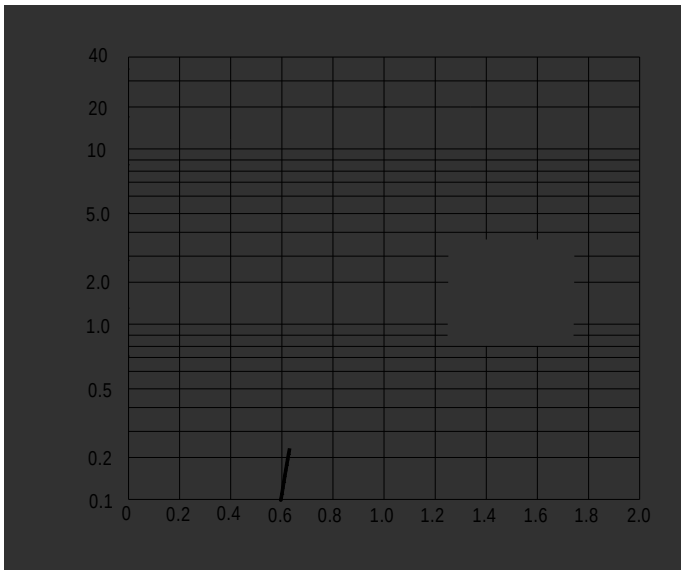
■ (Example)

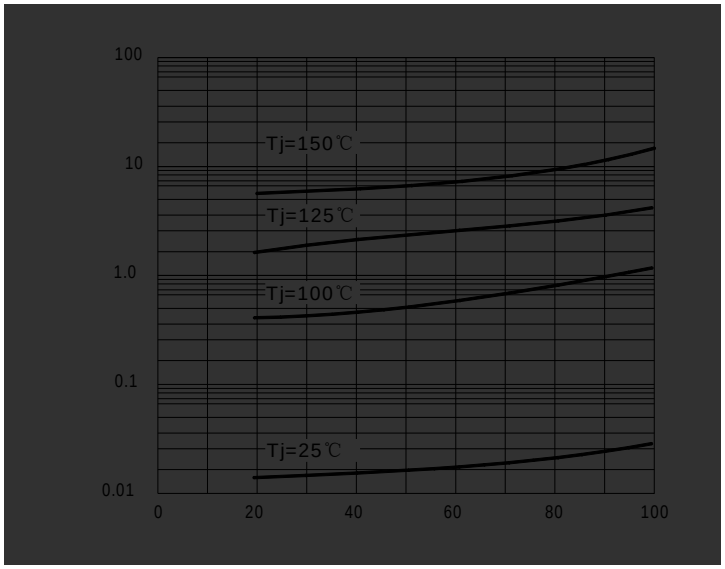
MURB1620CT	Approximate 1.43	50	2000	8000	Tube
MURB1620CT	Approximate 1.43	1000	2000	10000	Reel

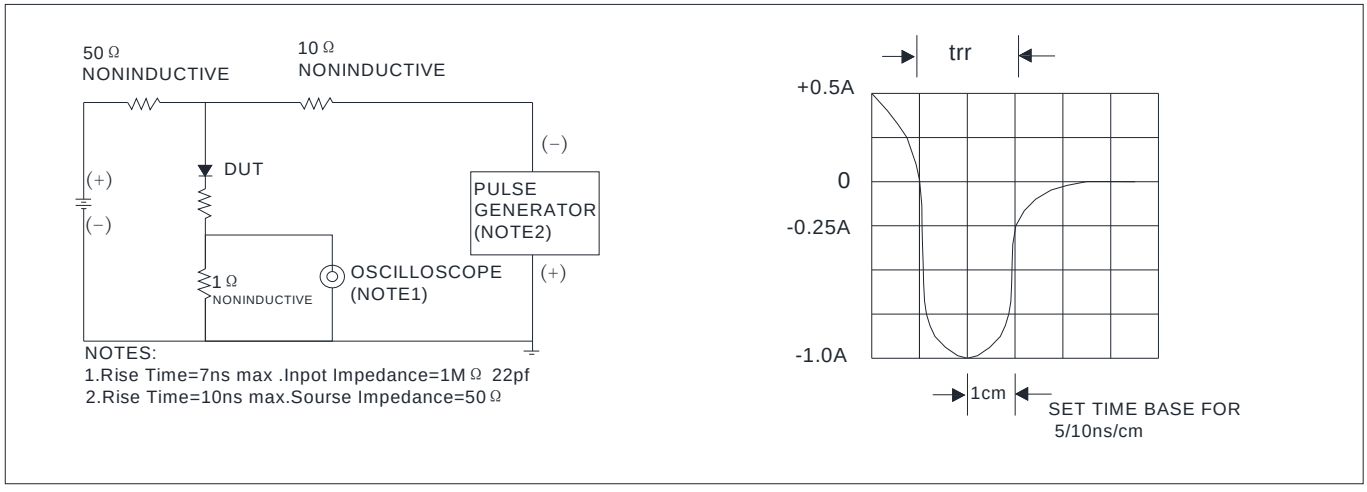
■ (Typical)


28.0
24.0
20.0
16.0
12.0
8.0
4.0
0
TC measure point
0
50
100
150
200
(℃)


140
120
100
80
60
40
20
8.3ms Single
Half Sine-Wave
JEDEC Method
1
2
5
10
20
50
100


40
20
10
5.0
2.0
1.0
0.5
0.2
0.1
0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0


100
10
1.0
0.1
0.01
Tj=150℃
Tj=125℃
Tj=100℃
Tj=25℃
0
20
40
60
80
100


50Ω
NONINDUCTIVE
10Ω
NONINDUCTIVE
(+)
(−)
DUT
(−)
PULSE
GENERATOR
(NOTE2)
1Ω
NONINDUCTIVE
OSCILLOSCOPE
(NOTE1)
(+)
NOTES:
1.Rise Time=7ns max .Inpot Impedance=1MΩ 22pf
2.Rise Time=10ns max.Sourse Impedance=50Ω
trr
+0.5A
0
-0.25A
-1.0A
1cm
SET TIME BASE FOR
5/10ns/cm

■

Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05
K	1.79	2.79
L	7.3	7.9
M	6.2	6.8
N	7.6	8.2

■



A	12.7
B	9.4
C	16.6
P	5.08
Q1	3.8
Q2	

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