

## MURB1620CT ULTRAFAST RECTIFIER

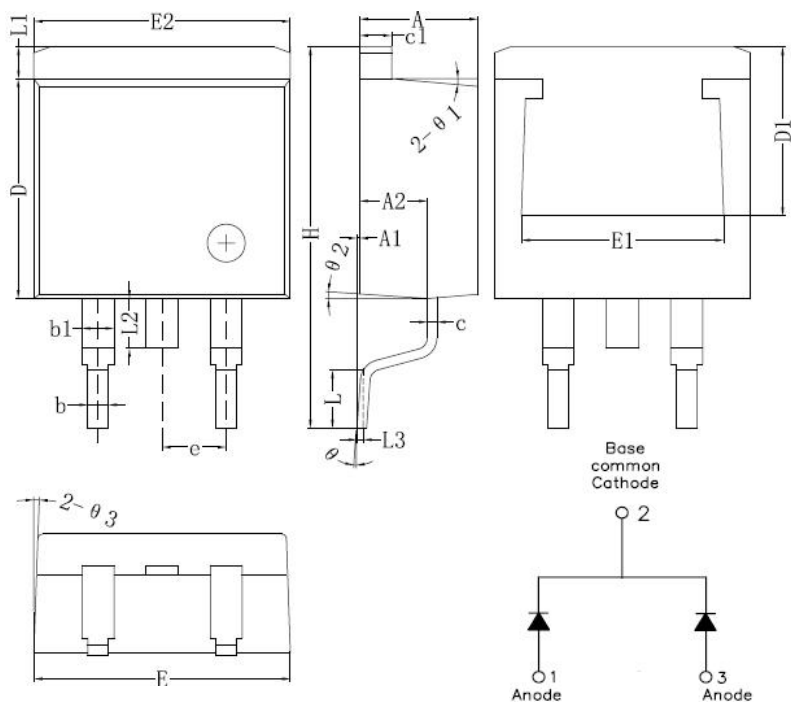
### Applications:

- Switching Power Supply
- Power Switching Circuits
- General Purpose

### Features:

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

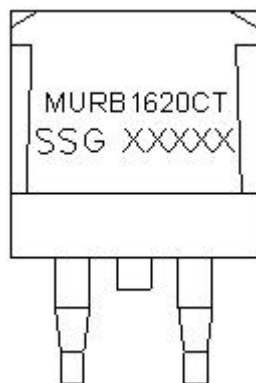
### Mechanical Dimensions: In mm



Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
A	4.55	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
c1	1.17	1.27	1.37
D	8.55	8.70	8.85
D1	6.40		
E	10.01	10.16	10.31
E1	7.6		
E2	9.98	10.08	10.18
e		2.54	
H	14.6	15.1	15.6
L	2.00	2.30	2.70
L1	1.17	1.27	1.40
L2			2.20
L3		0.25BSC	
e	0	-	8°
e1		5°	
e2		4°	
e3		4°	

### D<sup>2</sup> PAK

**Marking Diagram:**



Where XXXXX is YYWWL

MUR = Device Type  
 B = Package type  
 16 = Forward Current (16A)  
 20 = Reverse Voltage (200V)  
 CT = Configuration  
 SSG = SSG  
 YY = Year  
 WW = Week  
 L = Lot Number

**Cautions:** Molding resin  
 Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
MURB1620CT	D <sup>2</sup> PAK (Pb-Free)	800pcs/ reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings and Electrical Characteristics** @ $T_A=25^{\circ}\text{C}$  unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	MURB1620CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	200	V
Average Rectified Output Current @ $T_A = 55^{\circ}\text{C}$	$I_o$	16.0	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	125	A
Forward Voltage (per element) @ $I_F = 8.0\text{A}$ , $T_J=25^{\circ}\text{C}$	$V_{FM1}$	1.5	V
Peak Reverse Current @ $T_A = 25^{\circ}\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^{\circ}\text{C}$	$I_R$	10 500	$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	35	ns
Typical Junction Capacitance (Note 2)	$C_J$	80	pF
Operating and Storage Temperature Range	$T_J$ , $T_{STG}$	-55 to +150	$^{\circ}\text{C}$
Approximate Weight	wt	1.85	g
Case Style	D <sup>2</sup> PAK		

Note: 1.Measured with  $I_F=0.5\text{A}$ ;  $I_R=1.0\text{A}$ ;  $I_{RR}=0.25\text{A}$ .

2.Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

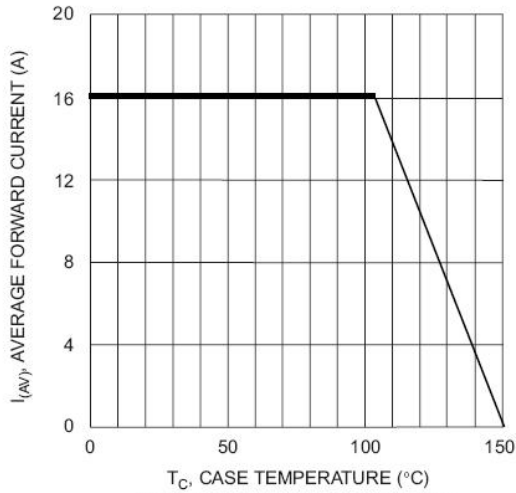


Fig. 1 Forward Current Derating Curve

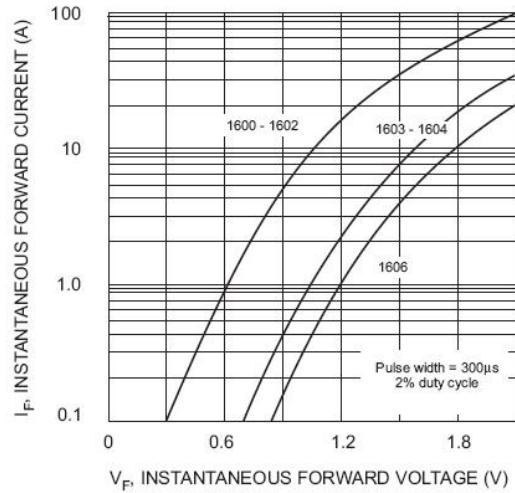


Fig. 2 Typical Forward Characteristics

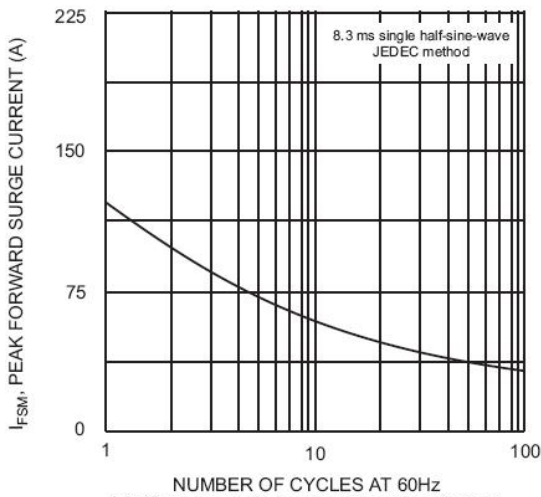


Fig. 3 Maximum Non-Repetitive Surge Current

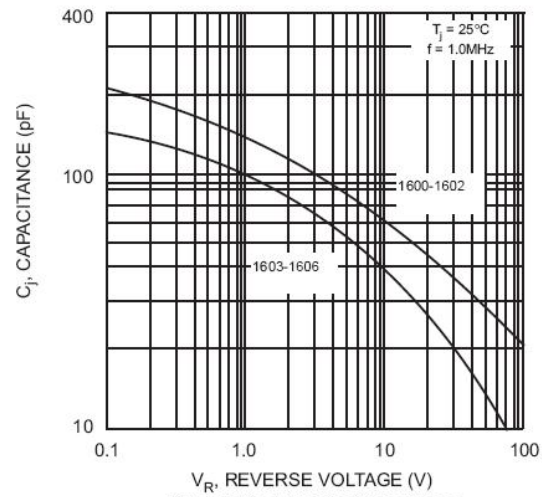
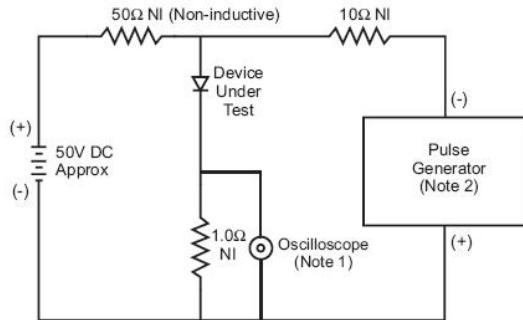


Fig. 4 Typical Junction Capacitance



- Notes:  
1. Rise Time = 7.0ns max. Input Impedance = 1.0M $\Omega$ , 22pF.  
2. Rise Time = 10ns max. Input Impedance = 50 $\Omega$ .

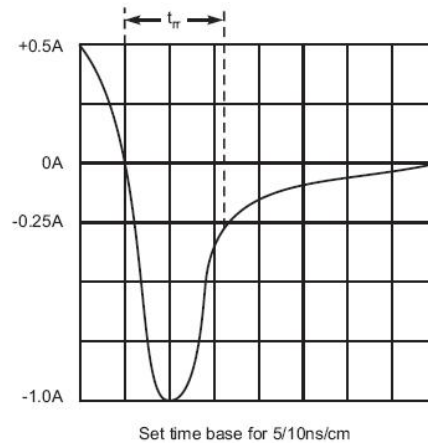


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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