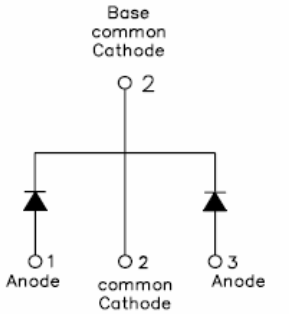
Technical Data
Data Sheet N0305, Rev. -

Green Products

MUR1620CT ULTRAFAST PLASTIC RECTIFIER

Applications:

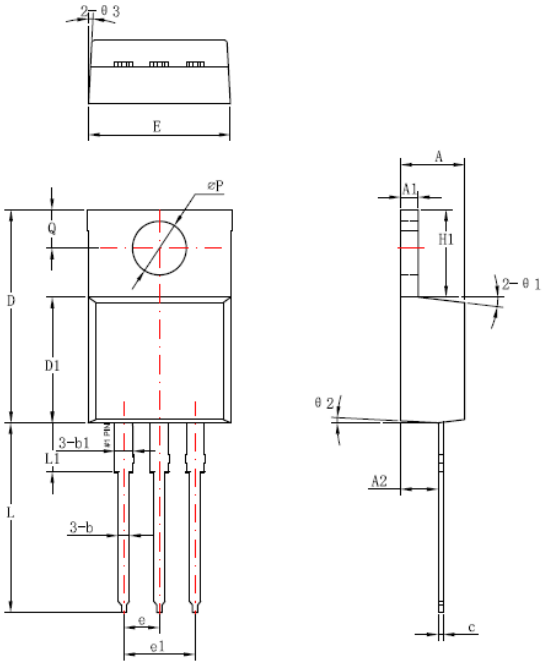
- Switching Power Supply
- Power Switching Circuits
- General Purpose



Features:

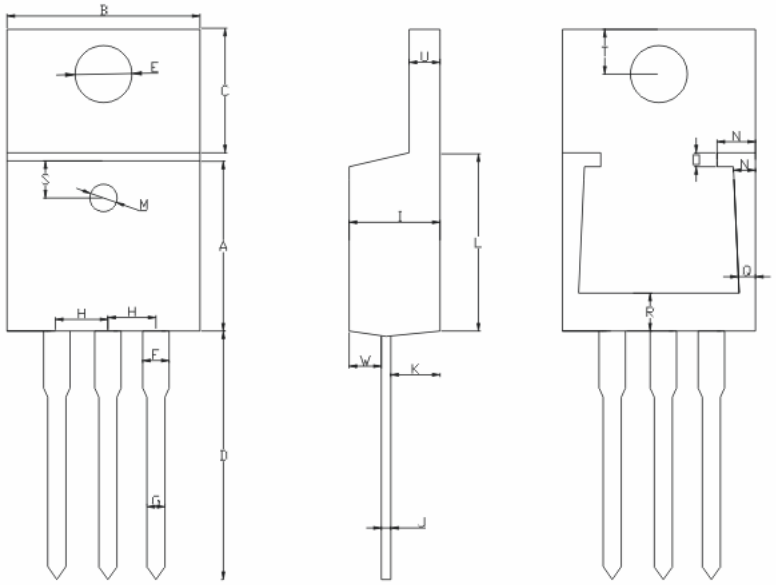
- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions: In mm



Symbol	Dimensions in millimeters		
	Min	Typical	Max
A	4.42	4.57	4.72
A1	1.17	1.27	1.37
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1		1.27	
c	0.36	0.38	0.61
D	14.94	15.24	15.54
D1	8.85	9.00	9.15
E	10.01	10.16	10.31
e		2.54	
e1		5.06	
H1	6.04	6.24	6.44
L	12.7	13.56	13.78
L1		3.5	
ΦP	3.74	3.84	4.04
Q	2.54	2.74	2.94
Θ1		7°	
Θ2		3°	
Θ3		4°	

OPTION 1



A:8.5±0.5	B:9.5±0.5	C:6.4±0.5	D:14.1±1
E:3.84±0.03	F:1.27±0.03	G:0.85±0.10	H:2.54±0.025
I:4.6±0.5	J:0.38±0.015	K:2.75±025	L:9.0±0.5
M:1.5±0.05	N:1.8±0.05	O:0.5±0.05	P:1.2±0.05
Q:0.9±0.05	R:3.2±0.05	S:1.55±0.05	T:2.8±0.15
U:1.27±0.05	W:1.27±0.03		

OPTION 2 (SR)

TO-220AB

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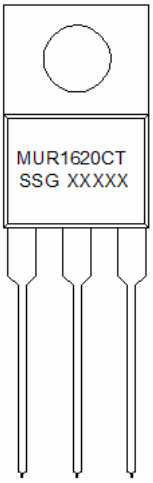
Marking Diagram:



Where XXXXX is YYWWL

MUR	= Device 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
MUR1620CT	TO-220AB (Pb-Free)	50pcs / tube

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

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Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	MUR1620CT	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°C	Io	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 = 8.0A, T_J=25°C	V_{FM1}	0.95	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_R	10 500	μA
Maximum Reverse Recovery Time (Note 1)	Trr	35	ns
Typical Junction Capacitance (Note 2)	C_J	80	pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C
Approximate Weight	wt	2.0	g
Case Style	TO-220AB		

Note: 1.Measured with I_F=0.5A; I_R=1.0A; I_{RR}=0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

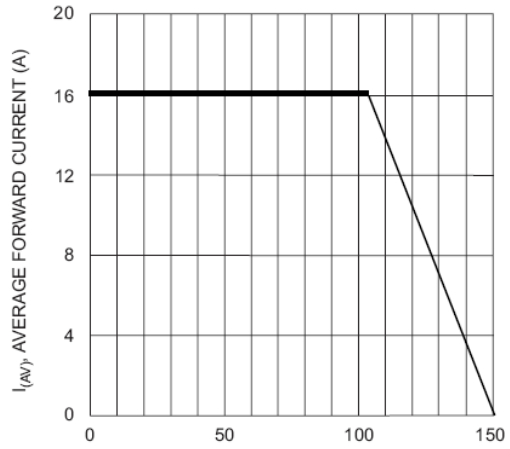


Fig. 1 Forward Current Derating Curve

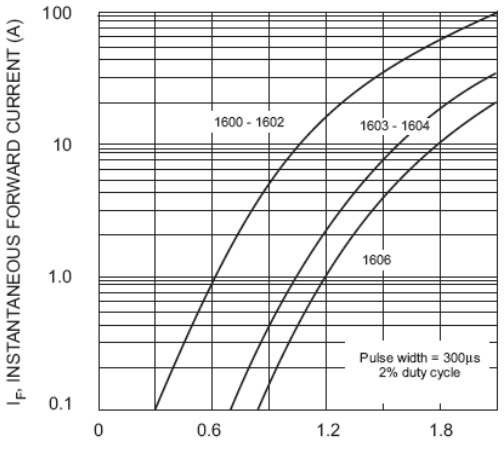


Fig. 2 Typical Forward Characteristics

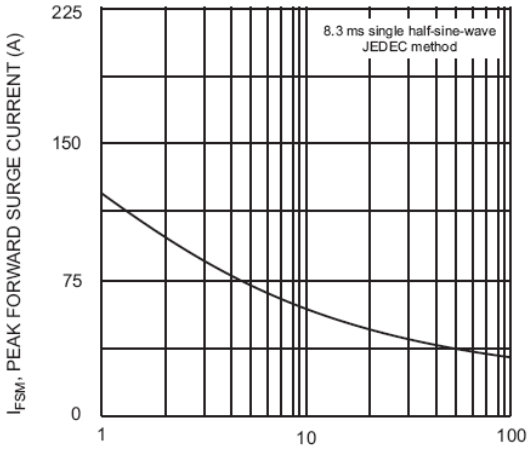


Fig. 3 Maximum Non-Repetitive Surge Current

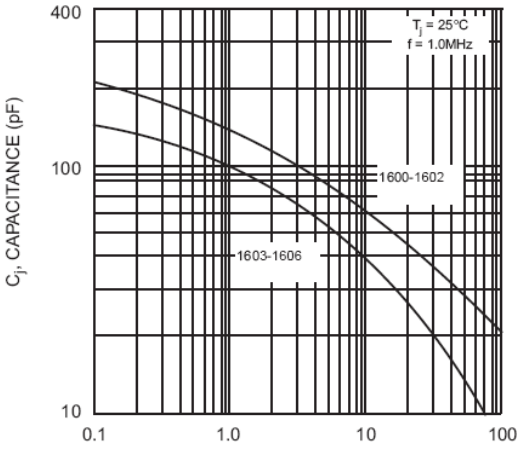
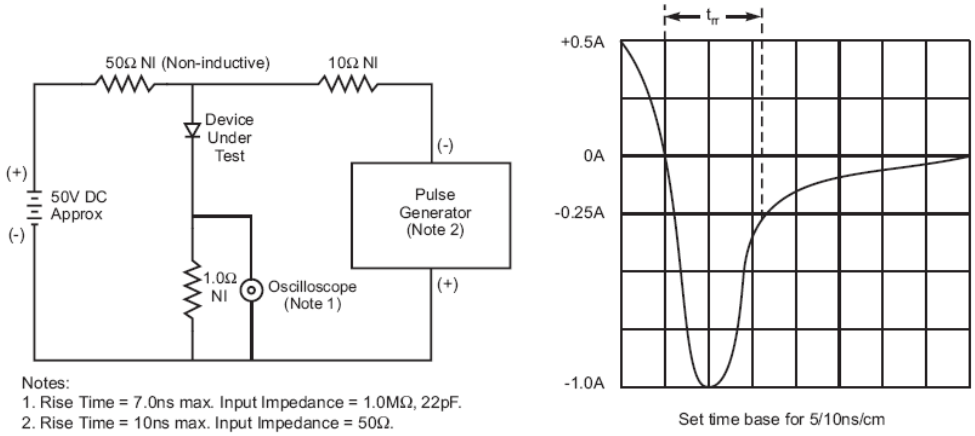


Fig. 4 Typical Junction Capacitance



Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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