



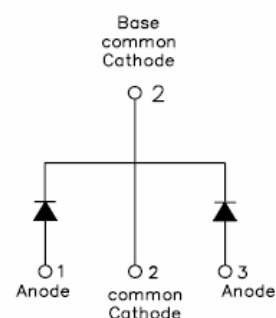
MUR1640CT ULTRAFAST PLASTIC RECTIFIER

Applications:

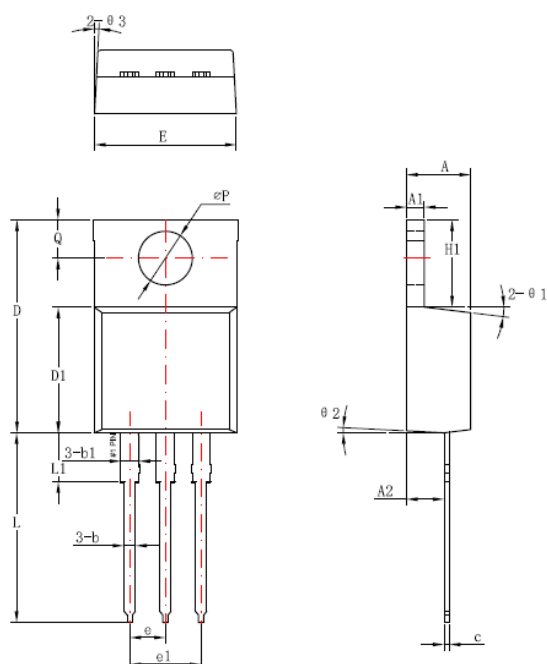
- Switching Power Supply
- Power Switching Circuits
- General Purpose

Features:

- Ultra-Fast Switching
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

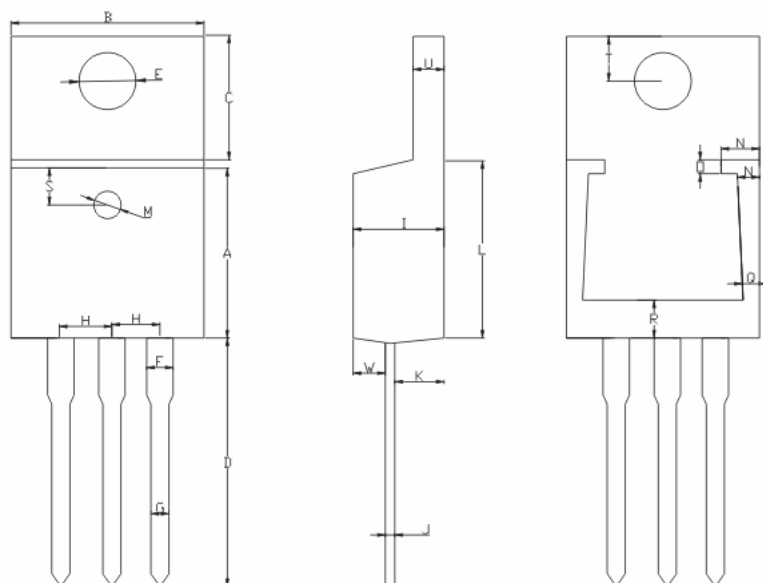


Mechanical Dimensions: In mm



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 ± 0.25	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)

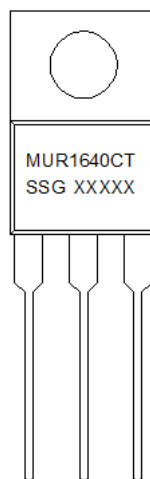
TO-220AB



Technical Data
Data Sheet N0306, Rev. -

Green Products

Marking Diagram:



Where XXXXX is YYWWL

MUR = Device Type
16 = Forward Current (16A)
40 = Reverse Voltage (400V)
CT = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
MUR1640CT	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.



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	MUR1640CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	400	V
Average Rectified Output Current (Note 1) @T _A = 55°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 = 8.0A, T _J =25°C	V _{FM1}	1.3	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)	T _{rr}	50	ns
Typical Junction Capacitance (Note 2)	C _J	60	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.



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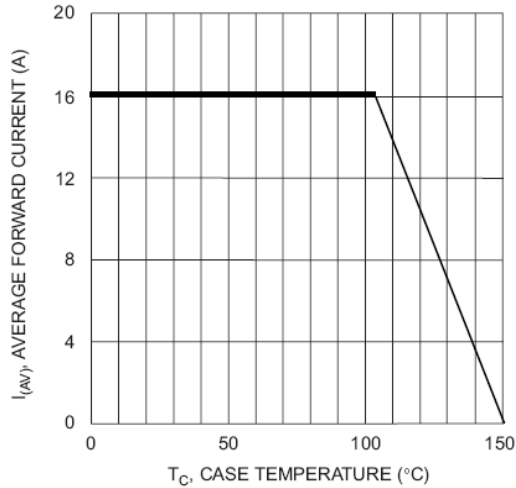


Fig. 1 Forward Current Derating Curve

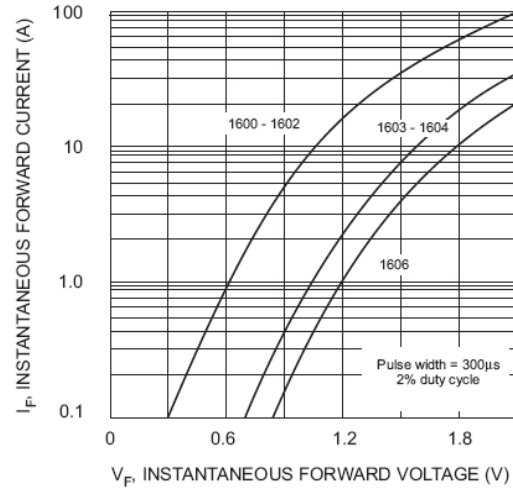


Fig. 2 Typical Forward Characteristics

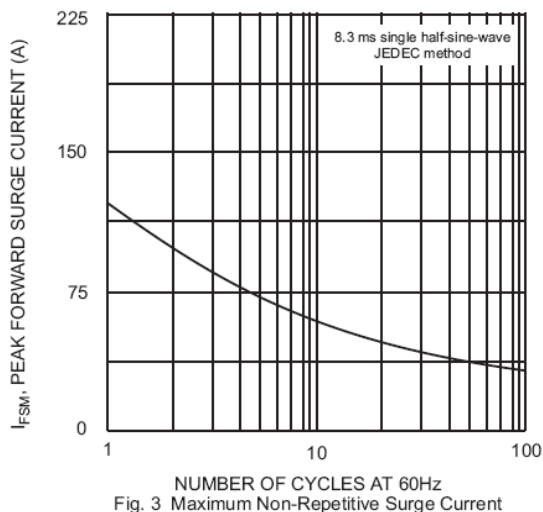


Fig. 3 Maximum Non-Repetitive Surge Current

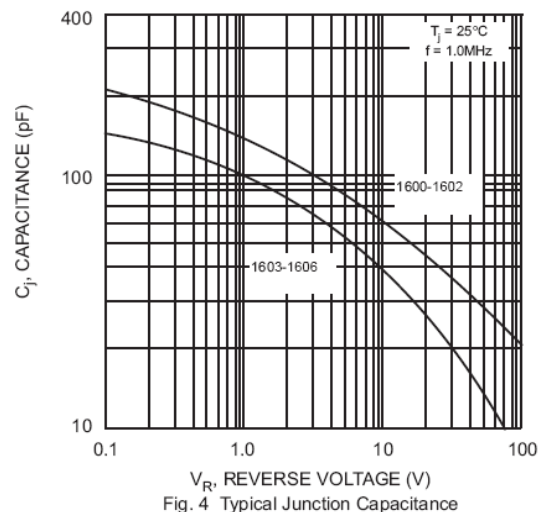
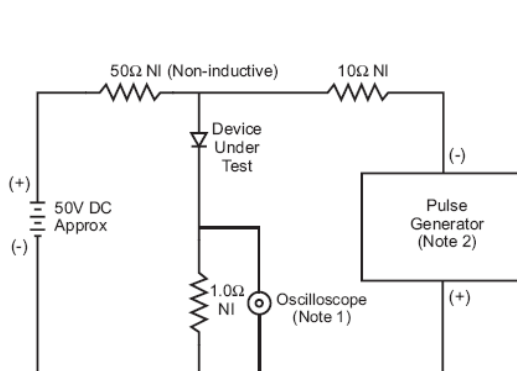


Fig. 4 Typical Junction Capacitance



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

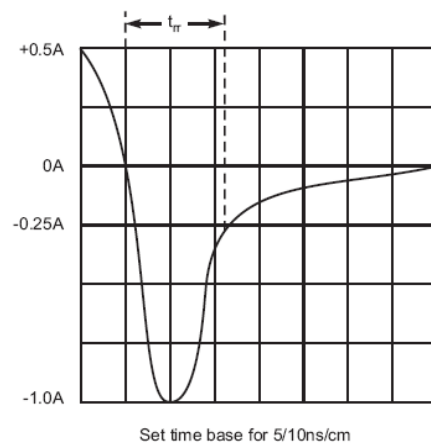


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



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