Technical Data
Data Sheet N0306, Rev. A

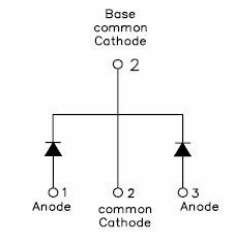
MUR1640CT ULTRAFAST RECTIFIER

TO-220AB

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**

Circuit Diagram



Applications

- **Switching Power Supply**
- **Power Switching Circuits**
- **General Purpose**

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	400	V
Average Rectified Forward Current	$I_{F\ (AV)}$	50% duty cycle @T_A=55°C, rectangular wave form	8(Per Leg) 16(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I_{FSM}	8.3ms, Half Sine pulse	125	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V_{F1}	@ 8A, Pulse, T_J = 25°C	-	1.3	V
Reverse Current(Per Leg)*	I_{R1}	@V_R = rated V_R, T_J = 25°C	-	10	μA
	I_{R2}	@V_R = rated V_R, T_J = 125°C	-	500	μA
Reverse Recovery Time(Per Leg)	t_{rr}	@I_F=500mA, I_R=1A,and I_{rm}=250mA	-	50	ns
Typical Junction Capacitance(Per Leg)	C_J	@V_R = 5V, T_C = 25℃, f_{SIG} = 1MHz	-	60	pF

* Pulse width < 300 μs, duty cycle < 2%

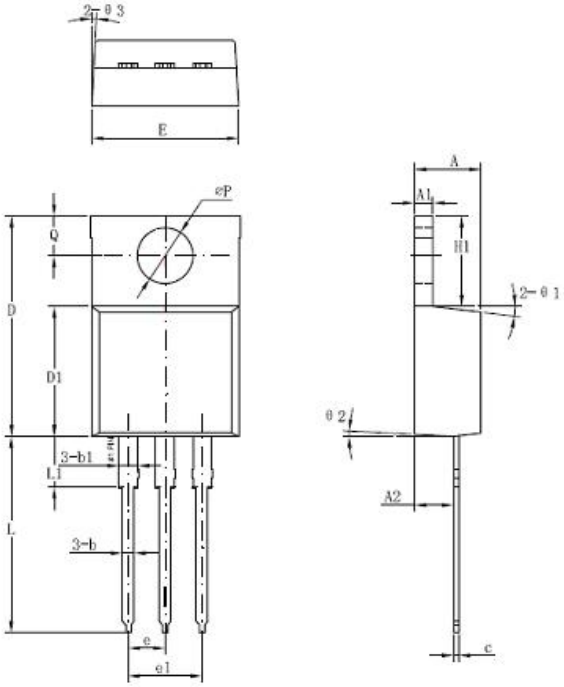
MUR1640CT

Technical Data
Data Sheet N0306, Rev. A

Thermal-Mechanical Specifications:

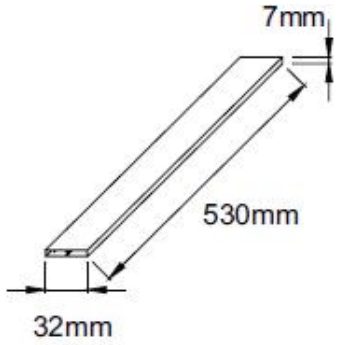
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	°C
Storage Temperature	T_{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2	°C/W
Approximate Weight	wt	-	2	g
Case Style	TO-220AB			

Mechanical Dimensions TO-220AB

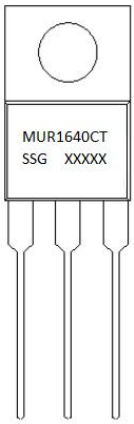


Symbol	Dimensions in millimeters		
	Min	Typical	Max
A	4.42	4.57	4.72
A1	1.17	1.27	1.37
A2	2.52	2.69	2.89
b	0.71	0.81	0.96
b1	1.17	1.27	1.37
c	0.31	0.38	0.61
D	14.94	15.24	15.54
D1	8.85	9.00	9.15
E	10.01	10.16	10.31
e		2.54	
e1	4.98	5.06	5.18
H1	6.04	6.24	6.44
L	12.7	13.56	13.80
L1	3.56	3.5	3.96
ΦP	3.74	3.84	4.04
Q	2.54	2.74	2.94
Θ1		7°	
Θ2		3°	
Θ3		4°	

Tube Specification



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

MUR1640CT

Technical Data
Data Sheet N0306, Rev. A

Ordering Information

Device	Package	Shipping
MUR1640CT	TO-220AB (Pb-Free)	50 pcs/ tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.