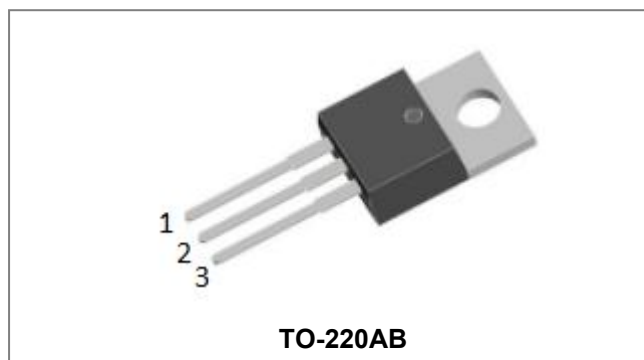


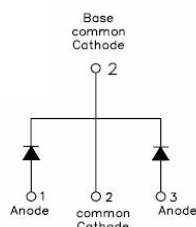
MUR1640CT ULTRAFAST RECTIFIER



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

Circuit Diagram



Applications

- Switching Power Supply
- Power Switching Circuits
- General Purpose

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V_{RRM}	-	400	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
Average Rectified Forward Current	$I_F (AV)$	50% duty cycle @ $T_A=55^\circ C$, 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

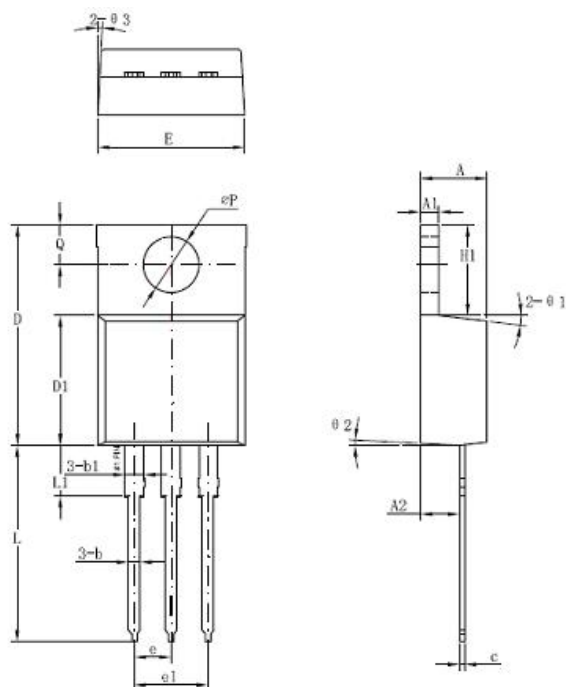
Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V_{F1}	@ 8A, Pulse, $T_J = 25^\circ C$	-	1.3	V
Reverse Current(Per Leg)*	I_{R1}	@ V_R = rated V_R , $T_J = 25^\circ C$	-	10	μA
	I_{R2}	@ V_R = rated V_R , $T_J = 125^\circ C$	-	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	@ $V_R = 5V$, $T_C = 25^\circ C$, $f_{SIG} = 1MHz$	-	60	pF

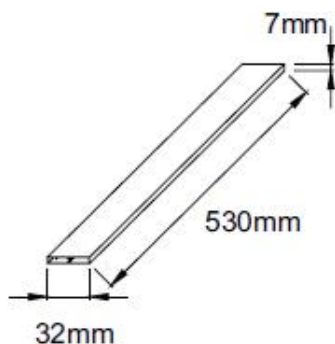
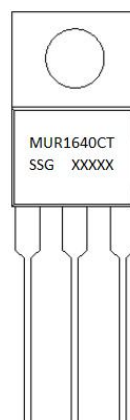
* Pulse width < 300 μs , duty cycle < 2%

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

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.

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