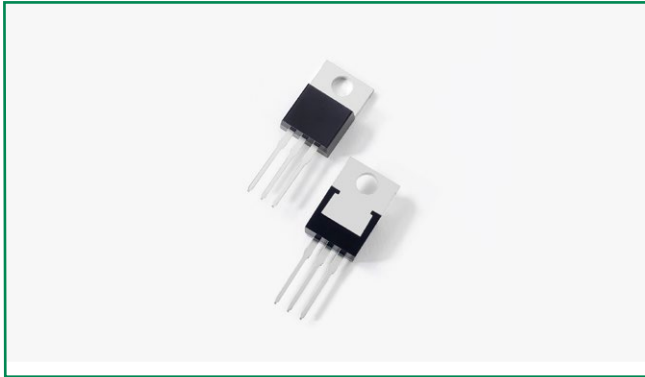
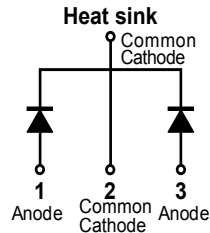


### MBR2060CT



#### Pin out



#### Description

The Littelfuse MBR2060CT Schottky Barrier Rectifier is designed to comply with the general requirements of commercial applications for high temperature environments with low leakage and low VF parameters.

It is suitable for high frequency switching mode power supply applications with high inductive loads. This Schottky Barrier diode pair can be used as free-wheeling or flyback diodes to suppress abrupt changes across an inductive load.

#### Features

- High junction temperature capability
- Low forward voltage drop
- High frequency operation
- Common cathode configuration in TO-220AB package

#### Applications

- Switching mode power supply
- Free-wheeling diodes (also known as snubber diodes)
- DC/DC converters
- Polarity protection diodes

#### Maximum Ratings

Parameters	Symbol	Test Conditions	Max	Unit
Peak Inverse Voltage	$V_{RWM}$	-	60	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 100^\circ\text{C}$ , rectangular wave form	10 (per leg) 20 (total device)	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	180	A

#### Electrical Characteristics

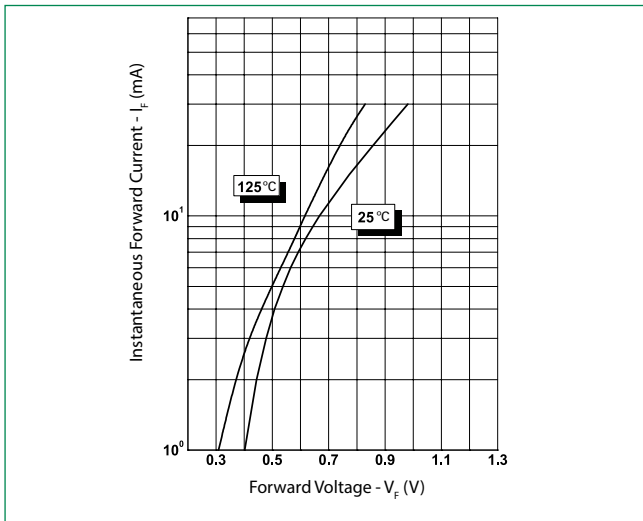
Parameters	Symbol	Test Conditions	Max	Unit
Forward Voltage Drop	$V_{F1}$	@10A, Pulse, $T_J = 25^\circ\text{C}$	0.80	V
		@20A, Pulse, $T_J = 25^\circ\text{C}$	0.95	
	$V_{F2}$	@10A, Pulse, $T_J = 125^\circ\text{C}$	0.70	
		@20A, Pulse, $T_J = 125^\circ\text{C}$	0.85	
Reverse Current (per leg)*	$I_{R1}$	@ $V_R = \text{rated } V_R$ , $T_J = 25^\circ\text{C}$	1.0	mA
	$I_{R2}$	@ $V_R = \text{rated } V_R$ , $T_J = 125^\circ\text{C}$	150	
Junction Capacitance (per leg)	$C_T$	@ $V_R = 5\text{V}$ , $T_C = 25^\circ\text{C}$ , $f_{SI} = 1\text{MHz}$	400	pF
Typical Series Inductance (per leg)	$L_S$	Measured lead to lead 5 mm from package body	8.0	nH
Voltage Rate of Change	$dv/dt$	-	10,000	V/ $\mu\text{s}$

\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

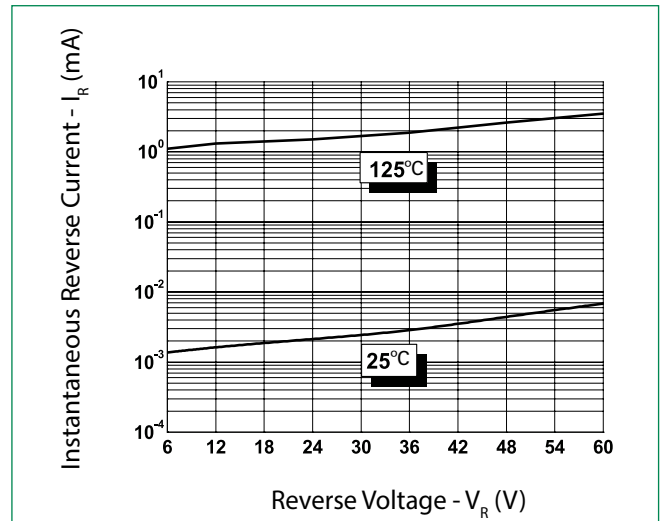
**Thermal-Mechanical Specifications**

Parameters	Symbol	Test Conditions	Max	Unit
Junction Temperature	$T_J$	-	-55 to +150	°C
Storage Temperature	$T_{stg}$	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	2.3	°C/W
Typical Thermal Resistance Case to Heat Sink	$R_{\theta CS}$	Mounting surface, smooth and greased	0.5	°C/W
Approximate Weight	wt	-	2	g
Case Style	TO-220AB			

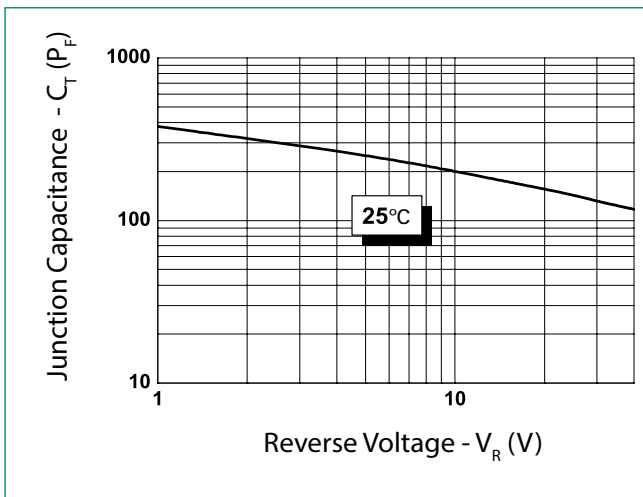
**Figure 1: Typical Forward Characteristics**



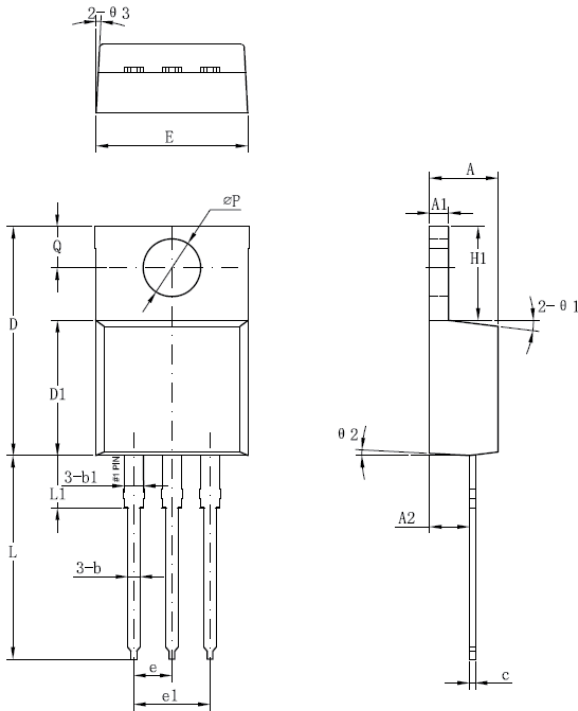
**Figure 2: Typical Reverse Characteristics**



**Figure 3: Typical Junction Capacitance**



**Dimensions- TO-220AB**



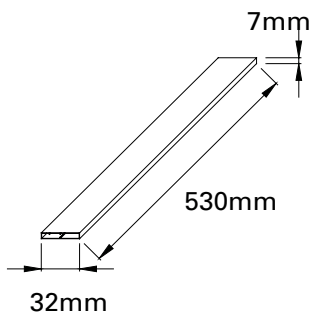
Symbol	Millimeters	
	Min	Max
A	3.56	4.83
A1	0.51	1.40
A2	2.03	2.92
b	0.38	1.02
b1	1.14	1.78
c	0.31*	0.61
D	14.22	16.51
D1	8.38	9.15*
E	9.65	10.67
e	2.54	-
e1	4.98*	-
H1	5.84	6.86
L	12.70	14.73
L1	-	6.35
øP	3.53	4.09
Q	2.54	3.43

Footnote \*: The spec. does not comply with JEDEC spec.

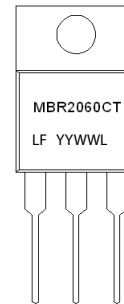
**Packing Options**

Part Number	Marking	Packing Mode	M.O.O.
MBR2060CT	MBR2060CT	50pcs /Tube	1000

**Tube Specification**



**Part Numbering and Marking System**



- MBR =Component Type
- B =Package Type
- 20 =Forward Current (20A)
- 60 =Reverse Voltage (60V)
- CT =Configuration
- LF =Littelfuse
- YY =Year
- WW =Week
- L =Lot Number