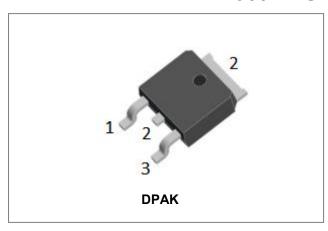


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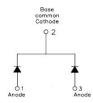
### MBRD2060CT SCHOTTKY RECTIFIER



#### **Features**

- 150℃ T<sub>J</sub> operation
- Center tap configuration
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- · High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- "-A" is an AEC-Q101 qualified device
- Terminals finish: 100% Pure Tin
- 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
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Battery charging

# **Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	-	60	V
Average Rectified Forward Current	I <sub>F (AV)</sub>	50% duty cycle @T <sub>C</sub> =105°C, rectangular wave form	10(Peg Leg) 20(Peg Device)	Α
Peak One Cycle Non-Repetitive Surge Current(peg leg)	I <sub>FSM</sub>	8.3 ms, half Sine pulse	120	Α

### **Electrical Characteristics:**

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop	V <sub>F1</sub>	@ 10A, Pulse, T <sub>J</sub> = 25 °C	0.66	0.80	V
(Peg Leg) *	V <sub>F2</sub>	@ 10A, Pulse, T <sub>J</sub> = 125 °C	0.59	0.70	V
Reverse Current (Peg Leg) *	$I_{R1}$ @ $V_R$ = rated $V_R$ , $T_J$ = 25 °C		0.02	1.0	mA
	I <sub>R2</sub>	@V <sub>R</sub> = rated V <sub>R</sub> , T <sub>J</sub> = 125 °C	10	30.0	mA
Junction Capacitance(Peg Leg)	Ст	@V <sub>R</sub> = 5V, T <sub>C</sub> = 25 °C, f <sub>SIG</sub> = 1MHz	259	300	pF

<sup>\*</sup> Pulse width < 300 µs, duty cycle < 2%

<sup>•</sup> China - Germany - Korea - Singapore - United States •

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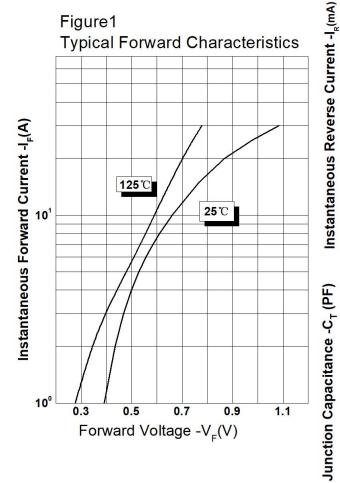


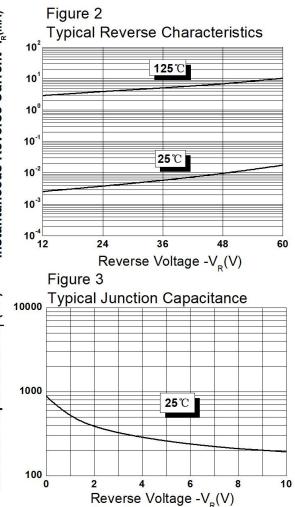


# **Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	T <sub>stg</sub>	-	-55 to + 150	°C
Typical Thermal Resistance Junction to Case(Peg Leg)	R <sub>θ</sub> JC	-	3.5	°C/W
Approximate Weight	wt	-	0.39	g
Case Style	DPAK			

# **Ratings and Characteristics Curves**





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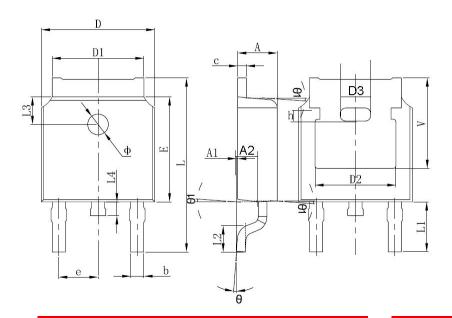


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### **Mechanical Dimensions DPAK**



SYMBOL	Dimensions in millimeters			
	Min.	Тур.	Max.	
Α	2.18	-	2.39	
A1	ı	-	0.13	
b	0.64	-	0.89	
С	0.46	-	0.89	
D	6.35	-	6.73	
D1	4.95	-	5.46	
D2	4.32	-	-	
E	5.97	6.10	6.22	
е	2.29BSC			
L	9.40	-	10.41	
L1	2.90 REF.			
L2	1.40	1.52	1.78	
L4	-	-	1.02	
Θ	0°	-	10°	
V	5.21	-	-	

### **Ordering Information**

Device	Package	Shipping
MBRD2060CT	DPAK (Pb-Free)	2500pcs / reel
MBRD2060CTTR	DPAK (Pb-Free)	2500pcs / reel

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

# **Marking Diagram**



Where XXXXX is YYWWL

 MBR
 = Device Type

 D
 = Package type

 20
 = Forward Current (20A)

 60
 = Reverse Voltage (60V)

 CT
 = Configuration

 SSG
 = SSG

 YY
 = Year

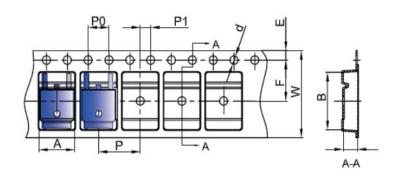
 WW
 = Week

 L
 = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

# **Carrier Tape Specification DPAK**



SYMBOL	Millimeters		
STWBOL	Min.	Max.	
Α	6.80	7.00	
В	10.40	10.60	
С	2.60	2.80	
d	Ф1.45	Ф1.65	
E	1.65	1.85	
F	7.40	7.60	
P0	3.90	4.10	
Р	7.90	8.10	
P1	1.90	2.10	
W	15.90	16.30	

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#### MBRD2060CT



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