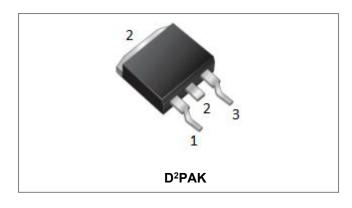






MBRB2530CT SCHOTTKY RECTIFIER



Features

- 150°C T_J 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
- 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

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	30	V
Average Rectified Forward Current (Per Device)	l _{F (AV)}	50% duty cycle @Tc=105°C, rectangular wave form	15(Per Leg) 30(Per Device)	Α
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I _{FSM}	8.3ms, Half Sine pulse	150	Α

Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop	V _{F1}	@ 30A, Pulse, T _J = 25 °C	0.80	0.82	V
(Per Leg) *	V _{F2}	@ 30A, Pulse, T _J = 125 °C	0.74	0.76	V
Reverse Current (Per Leg) *	I _{R1}	@V _R = rated V _R , T _J = 25 °C	0.03	1.0	mA
	I _{R2}	$@V_R = \text{rated } V_{R,} T_J = 125 ^{\circ}\text{C}$	15	40	mA
Junction Capacitance(Per Leg)	Ст	$@V_R = 5V, T_C = 25 ^{\circ}C, f_{SIG} = 1MHz$	300	800	pF
Series Inductance(Per Leg)	Ls	Measured lead to lead 5 mm from package body	8.0	-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

^{*} Pulse width < 300 µs, duty cycle < 2%

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Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	TJ	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case(Per Leg)	R _θ JC	DC operation	1.6	°C/W
Approximate Weight	wt	-	1.85	g
Case Style	D ² PAK			

Ratings and Characteristics Curves

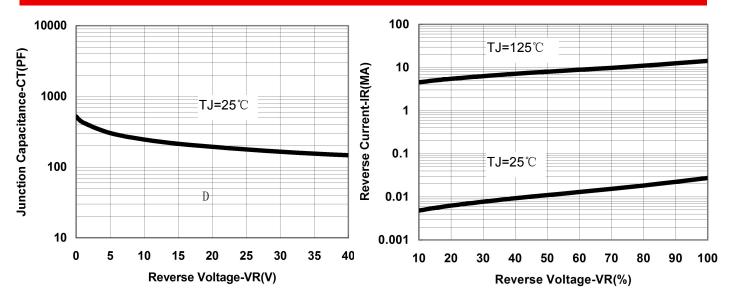


Fig.1-Typical Junction Capacitance

Fig.2-Typical Reverse Characteristics

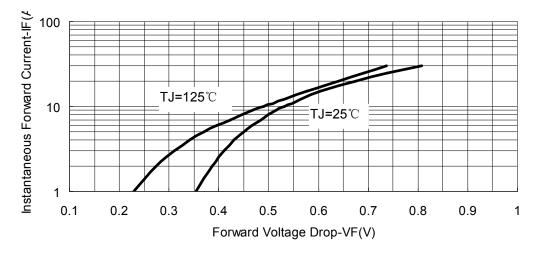


Fig.3-Typical Instantaneous Forward Voltage Characteristics

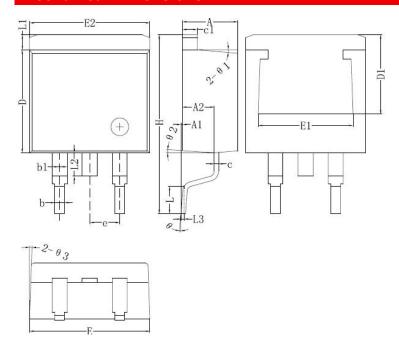
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Mechanical Dimensions D²PAK



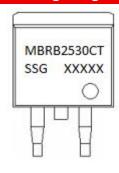
Symbol	Dimensions in millimeters		
	Min.	Typical	Max.
Α	4.47	4.70	4.85
A1	0	0.10	0.25
A2	2.59	2.69	2.89
b	0.71	0.81	0.96
b1	1.17	1.27	1.37
С	0.31	0.38	0.61
c1	1.17	1.27	1.37
D	8.50	8.70	8.90
D1	6.40		
E	10.01	10.16	10.31
E1	7.6		
E2	9.98	10.08	10.31
е		2.54	
Н	14.6	15.1	15.6
L	2.00	2.30	2.74
L1	1.12	1.27	1.42
L2	1.30		2.20
L3		0.25BSC	
е	0	-	8°
e1		5°	
e2		4°	
е3		4°	

Ordering Information

Device	Package	Shipping
MBRB2530CT	D ² PAK	800pcs / 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

 B
 = Package type

 25
 = Forward Current (25A)

 30
 = Reverse Voltage(30V)

 CT
 = Configuration

 SSG
 = SSG

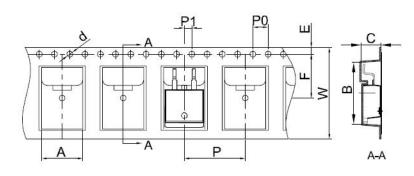
 YY
 = Year

 WW
 = Week

 L
 = Lot Number

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

Carrier Tape Specification D²PAK



SYMBOL	Millimeters		
STWIDUL	Min.	Max.	
Α	10.70	10.90	
В	16.03	16.23	
С	5.11	5.31	
d	1.45	1.65	
Е	1.65	1.85	
F	11.40	11.60	
P0	3.90	4.10	
Р	15.90	16.10	
P1	1.90	2.10	
W	23.90	24.30	

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