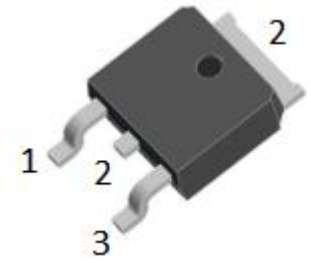
Technical Data
Data Sheet N0801, Rev. A

RoHS

MBRD560 THRU MBRD5200
SCHOTTKY RECTIFIER

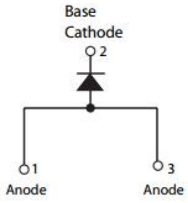


DPAK

Features

- 150℃ 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

- Disk drives
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Battery charging

Maximum Ratings and Electrical characteristics @T_A = 25°C unless otherwise specified

Characteristics	Symbol	MBRD 560	MBRD 580	MBRD 5100	MBRD 5150	MBRD 5200	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	80	100	150	200	V
Max. Average Forward Current	$I_{F(AV)}$	5					A
Max. Peak One Cycle Non-Repetitive Surge Current(8.3ms Single half sine-wave)	I_{FSM}	120					A
Max. Forward Voltage Drop @5A, 25°C	V_F	0.65	0.75	0.85	0.90	0.92	V
Max. Reverse Current @VRWM, 25°C	I_R	1					mA
Max. Junction Capacitance(Note1)	C_T	300			150		pF
Max. Junction Temperature	T_J	-55 to +150					°C
Max. Storage Temperature	T_{stg}	-55 to +150					°C
Typical Thermal Resistance Junction to Case (DC operation)	$R_{\theta JC}$	6.0					°C/W
Approximate Weight	wt	0.39					g
Case Style	DPAK						

* Pulse width < 300 μs, duty cycle < 2%
Note1: Measured at 1.0 MHz and applied reverse voltage of 5.0V D.C.

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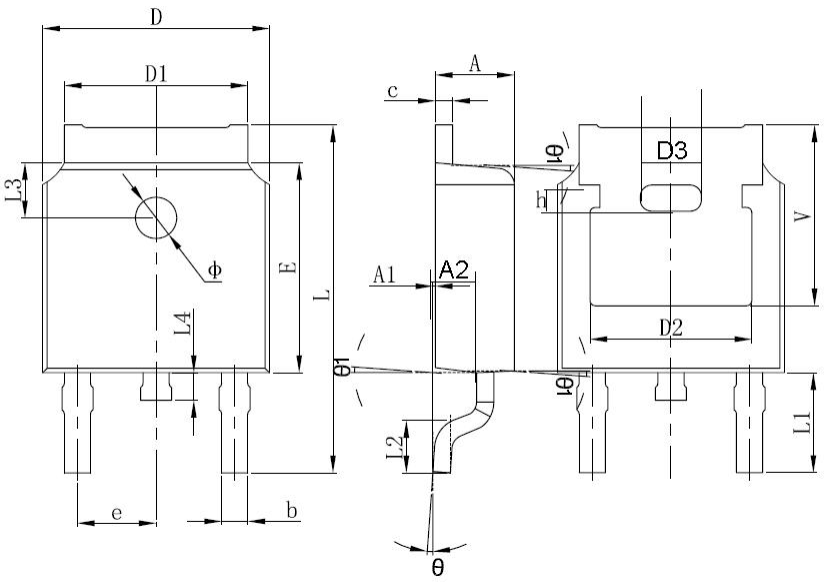
Mechanical Dimensions DPAK



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.40	0.087	0.094
A1	0.00	0.127	0.000	0.005
b	0.66	0.86	0.026	0.034
c	0.46	0.60	0.018	0.024
D	6.50	6.70	0.256	0.264
D1	5.13	5.46	0.202	0.215
D2	4.83 REF.		0.190 REF.	
E	6.00	6.20	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.70	10.40	0.381	0.409
L1	2.90 REF.		0.144 REF.	
L2	1.40	1.70	0.055	0.067
L3	1.60 REF.		0.063 REF.	
L4	0.60	1.00	0.024	0.039
Φ	1.10	1.30	0.043	0.051
Θ	0°	8°	0°	8°
h	0.00	0.30	0.000	0.012
V	5.35 REF.		0.211 REF.	

Ordering Information

Device	Package	Shipping
MBRD560 THRU MBRD5200	DPAK (Pb-Free)	2500pcs / reel

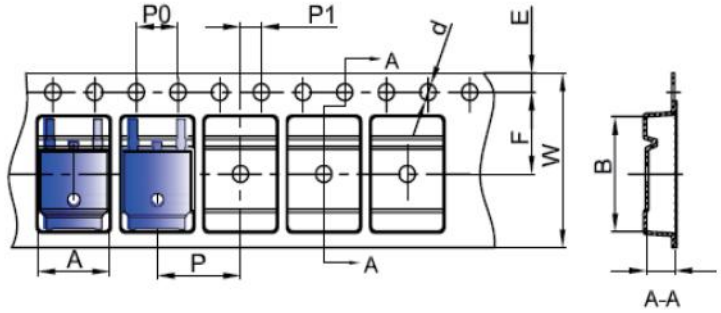
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

First row: Part Number (MBRD560, MBRD580, MBRD5100, MBRD5150, MBRD5200)

Second row: SSG YYWWL
YY is the manufacture year,
WW is the manufacture week code,
L is the wafer's Lot Number

Carrier Tape Specification DPAK



SYMBOL	Millimeters	
	Min.	Max.
A	6.80	7.00
B	10.40	10.60
C	2.60	2.80
d	Φ1.45	Φ1.65
E	1.65	1.85
F	7.40	7.60
P0	3.90	4.10
P	7.90	8.10
P1	1.90	2.10
W	15.90	16.30

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