Technical Data
Data Sheet N1388, Rev. -

Green Products

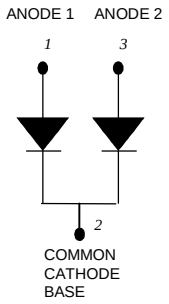
MBRH6045PT SCHOTTKY RECTIFIER

Applications:

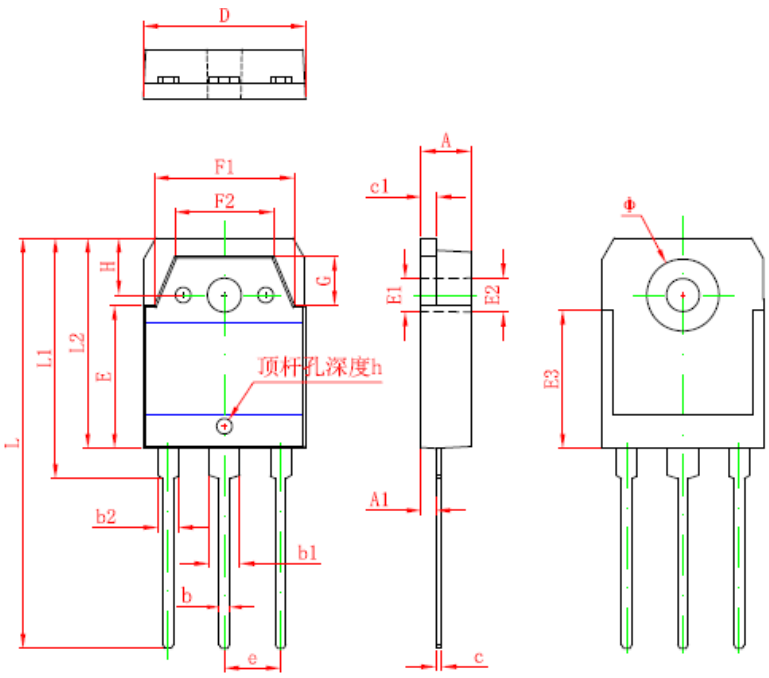
- **Switching power supply**
- **Converters**
- **Free-Wheeling diodes**
- **Reverse battery protection**
- **Center tap configuration**

Features:

- **150°C T_J operation**
- **Center tap TO- 3P package**
- **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**



Mechanical Dimensions: In mm



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.600	5.000	0.181	0.197
A1	1.200	1.600	0.047	0.063
b	0.800	1.200	0.031	0.047
b1	2.800	3.200	0.110	0.126
b2	1.800	2.200	0.071	0.087
c	0.500	0.700	0.020	0.028
c1	1.450	1.650	0.057	0.065
D	15.450	15.850	0.608	0.624
E	13.700	14.100	0.539	0.555
E1	3.200 REF		0.126 REF	
E2	3.300 REF		0.130 REF	
E3	13.450 REF		0.530 REF	
F1	13.400	13.800	0.528	0.543
F2	9.400	9.800	0.370	0.386
L	39.900	40.300	1.571	1.587
L1	23.200	23.600	0.913	0.929
L2	20.300	20.600	0.799	0.811
Φ	6.900	7.100	0.272	0.280
G	5.150	5.550	0.203	0.219
e	5.450 TYP		0.215 TYP	
H	5.000 REF		0.197 REF	
h	0.000	0.300	0.000	0.012

TO-3P

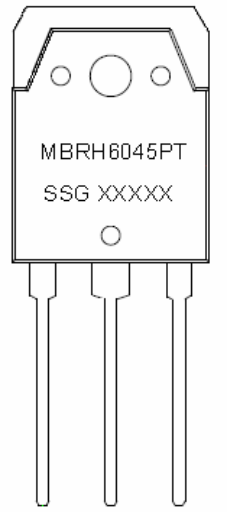
SANGDEST
MICROELECTRONICS

MBRH6045PT

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Marking Diagram:



Where XXXXX is YYWWL

MBRH = Device Type
60 = Forward Current (60A)
45 = Reverse Voltage (45V)
PT = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
MBRH6045PT	TO-3P(Pb-Free)	30pcs/ tube

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

Maximum Ratings:

Characteristics	Symbol	Condition	Max	Units
Peak Reverse Voltage	V_{RWM}	-	45	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @TC =105℃ rectangular wave form	30(per leg) 60(per leg)	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	430	A

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 30A, Pulse, T_J = 25℃	0.70	V
	V_{F2}	@ 30A, Pulse, T_J = 125℃	0.65	V
Max. Reverse Current (per leg) *	I_{R1}	@V_R = rated V_R , T_J = 25℃	1.0	mA
	I_{R2}	@V_R = rated V_R , T_J = 125℃	50	mA
Typical Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	7.5	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/μs

*Pulse Width < 300μs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature Range	T_J	-	-55 to +150	℃
Storage Temperature Range	T_{stg}	-	-55 to +150	℃
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	1.6	℃/W
Approximate Weight	wt	-	6.0	g
Case Style	TO-3P			

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