Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

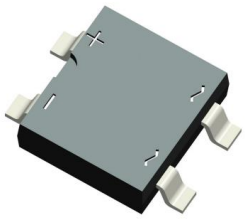
Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

MB05F
THRU
MB10F

Technical Data
Data Sheet N1456, Rev. B

MB05F THRU MB10F SINGLE PHASE 0.8AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

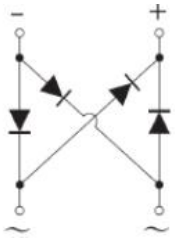


MBF

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: MBF, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings @T_A=25°C unless otherwise specified

Type Number	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Voltage	V_{RMS}	35	70	140	280	420	480	700	V
Average Rectified Output Current (Note1)@T_A=40℃ (Note 2)@T_A=40℃	I_O	0.5 0.8							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A

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THRU
MB10F

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Electrical Characteristics: @T_A=25°C unless otherwise specified

Type Number	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
Forward Voltage per element @I_F =0.8A	V_{FM}	1.1							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_R	5 500							μA
Typical Junction Capacitance (Note 3)	Cj	13							pF

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications: @T_A=25°C unless otherwise specified

Type Number	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
Typical Thermal Resistance per leg	$R_{\theta JA}$	60							°C/W
	$R_{\theta JL}$	16							
Operating Junction and Storage Temperature Range	T_J ,T_{STG}	-55+150							°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad..
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Thermal REsistance From Junction to Ambient

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

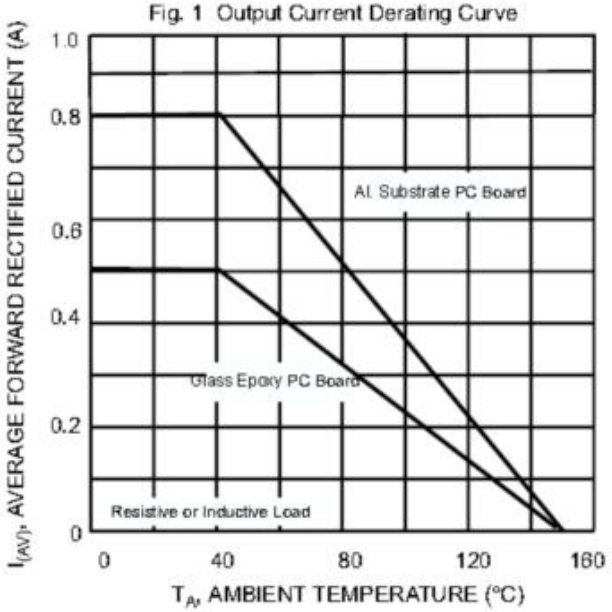
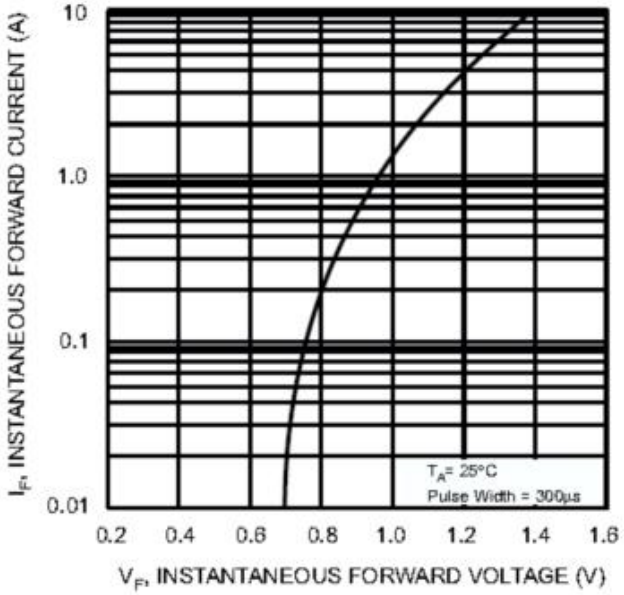


Fig. 2 Typical Forward Characteristics (per leg)



Technical Data
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RoHS

Fig. 3 Maximum Peak Forward Surge Current (per leg)

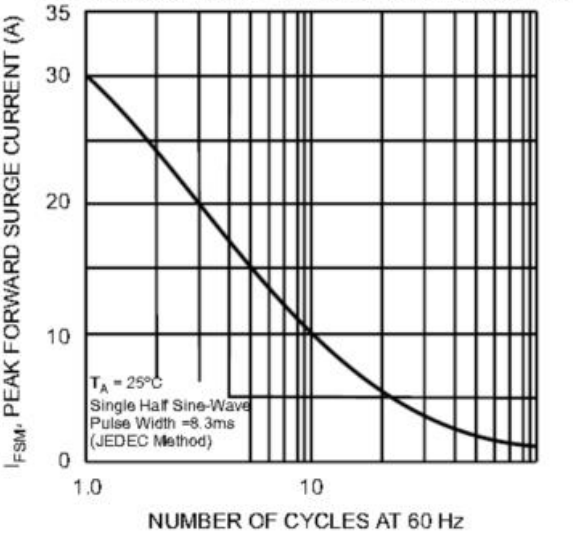


Fig. 4 Typical Junction Capacitance

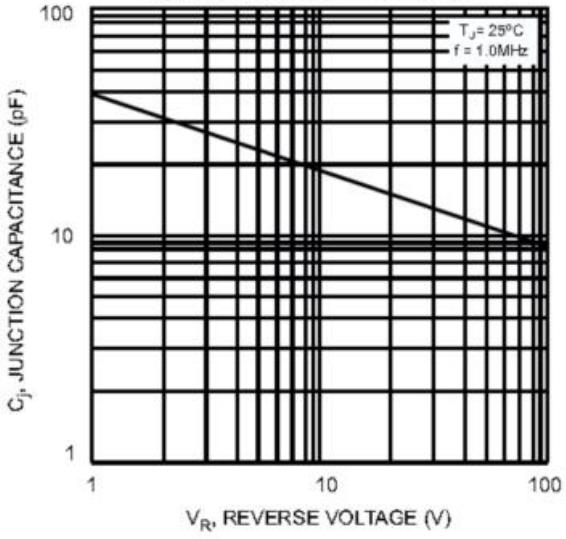
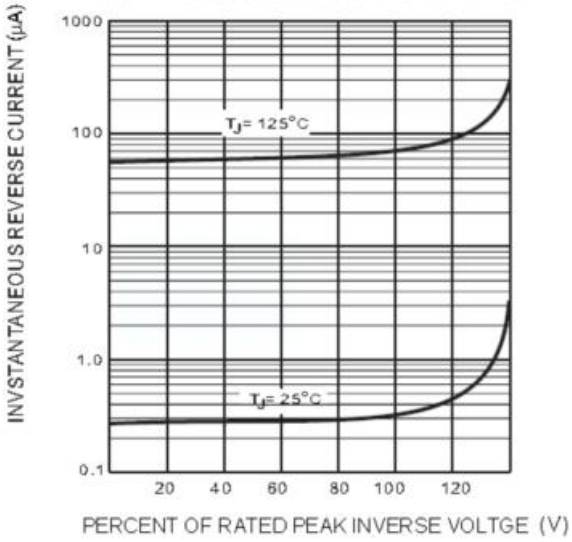


FIG.5 TYPICAL REVERSE CHRACTERISTICS

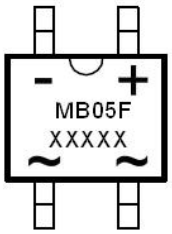


Ordering Information

Device	Package	Plating	Shipping
MB05F THRU MB10F	MBF (Pb-Free)	Pure Sn	5000pcs / 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

MB05F = Type Number
YY = Year
WW = Week
L = Lot Number

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

MB05F
THRU
MB10F

Technical Data
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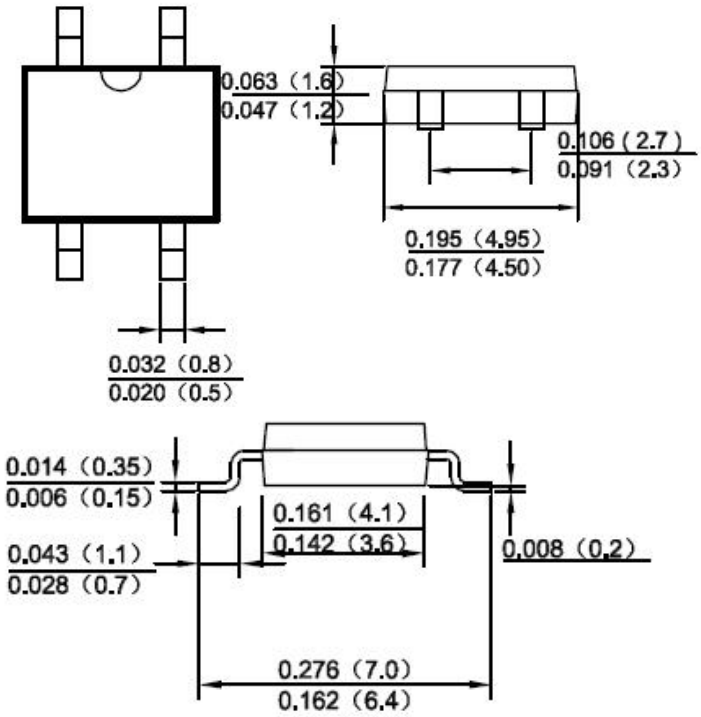
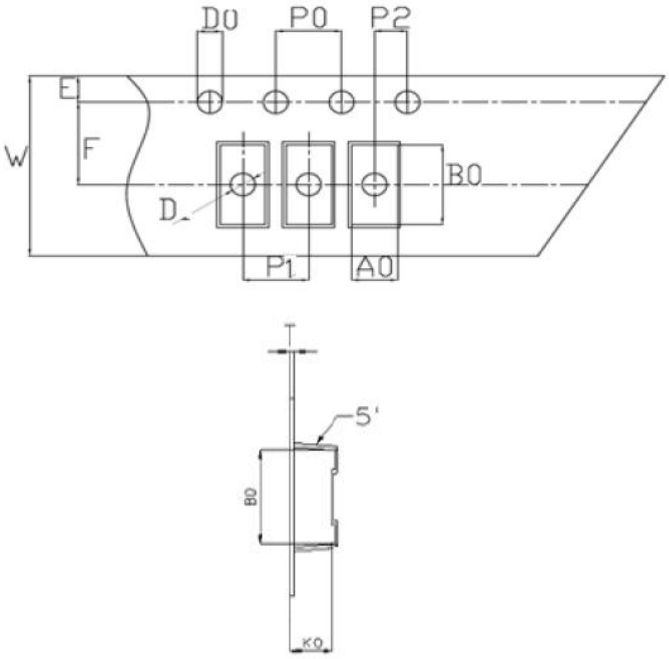
RoHS

Mechanical Dimensions MBF(Inches/Millimeters)



Carrier Tape & Reel Specification MBF



SYMBOL	Millimeters	
	Min.	Max.
A0	5.21	5.41
B0	7.10	7.30
D0	1.50	1.60
D1	1.40	1.60
P0	3.90	4.10
P1	7.90	8.10
P2	1.95	2.05
E	1.65	1.85
K0	1.55	1.75
F	5.45	5.55
W	11.90	12.10
T	0.24	0.30
10P0	39.80	40.20

MB05F
THRU
MB10F

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