1A Surface Mount Glass Passivated Bridge Rectifiers
MBS01A Series

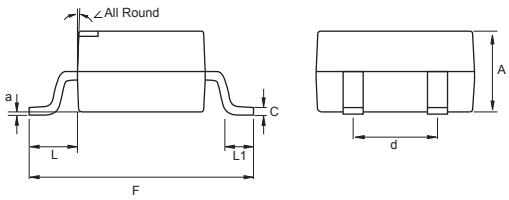
FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage 800V, 1000V
- Forward Current : 1.0A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

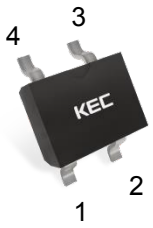
- Package : MBS
- Terminal : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 100mg 0.0035oz

PACKAGE DIMENSION (MBS)



DIM	MILLIMETERS
A	2.4±0.2
C	0.185±0.035
D	4.75±0.25
E	3.85±0.25
F	6.7±0.3
d	2.5±0.2
e	0.6±0.1
L	1.5±0.2
L1	0.8±0.3
a	0.2
∠	7°

PIN CONFIGURATION

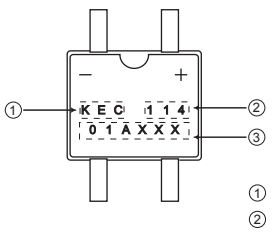


PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

ORDERING INFORMATION

Part Number	QTY per Box	QTY Per Carton Box
MBS01A80B	3,000 pcs	30,000 pcs
MBS01A10C	3,000 pcs	30,000 pcs

MARKING CODE



MARKING INFORMATION

Part Number	Marking code
MBS01A80B	01A80B
MBS01A10C	01A10C

MAXIMUM RATING and ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter		Symbols	MBS01A80B	MBS01A10C	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	800	1000	V
Maximum RMS voltage		V_{RMS}	560	700	V
Maximum DC Blocking Voltage		V_{DC}	800	1000	V
Average Rectified Output Current at T_C=125 °C		I_O	1		A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	35		A
Maximum Forward Voltage at 1.0 A		V_F	1.1		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_J=25 ℃	I_R	5		μA
	@T_J=125 ℃		40		
Typical Junction Capacitance (Note1)		C_j	13		pF
Typical Thermal Resistance (Note2)		$R\theta_{JA}$	80		℃/W
		$R\theta_{JC}$	28		
Operating and Storage Temperature Range		Tj, T_{stg}	-55 ~ +150		℃

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

Fig.1 Average Rectified Output Current Derating Curve

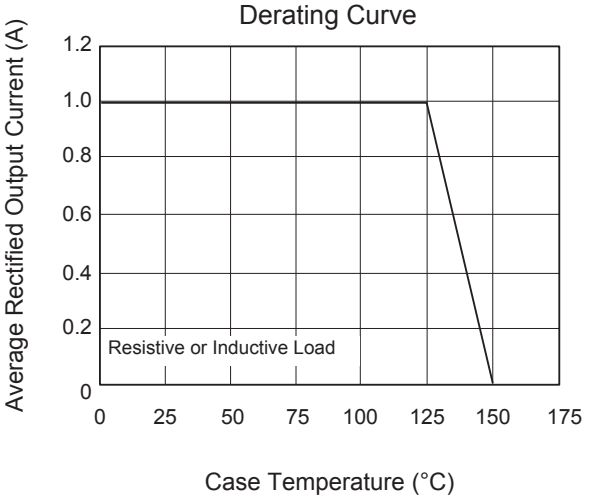


Fig.2 Typical Reverse Characteristics

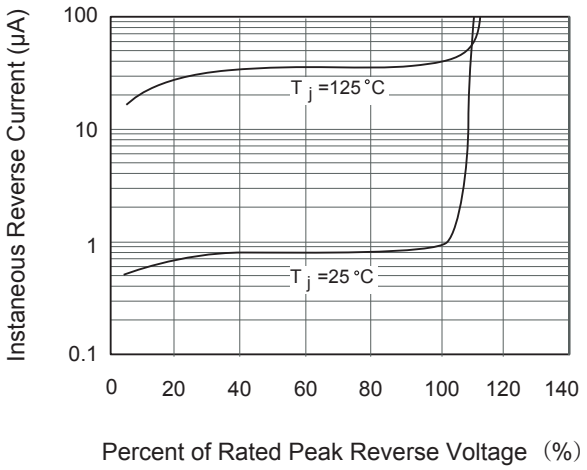


Fig.3 Typical Instaneous Forward Characteristics

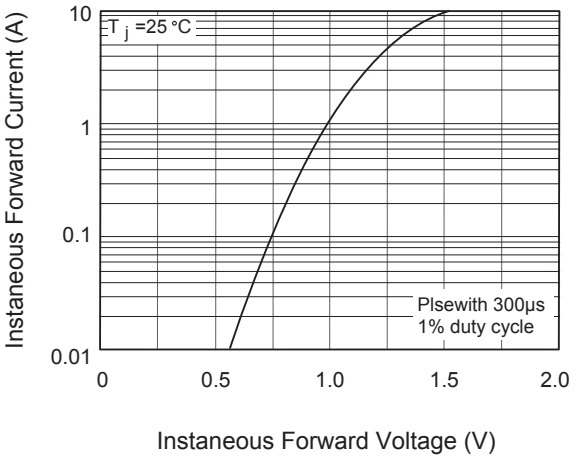


Fig.4 Typical Junction Capacitance

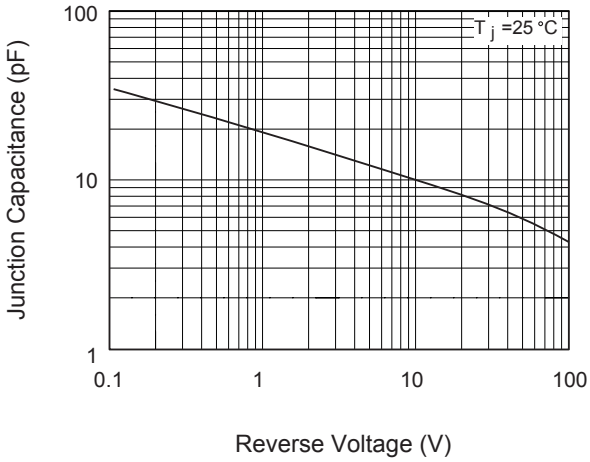
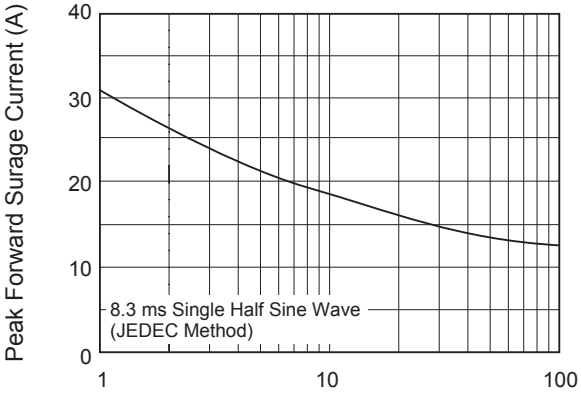
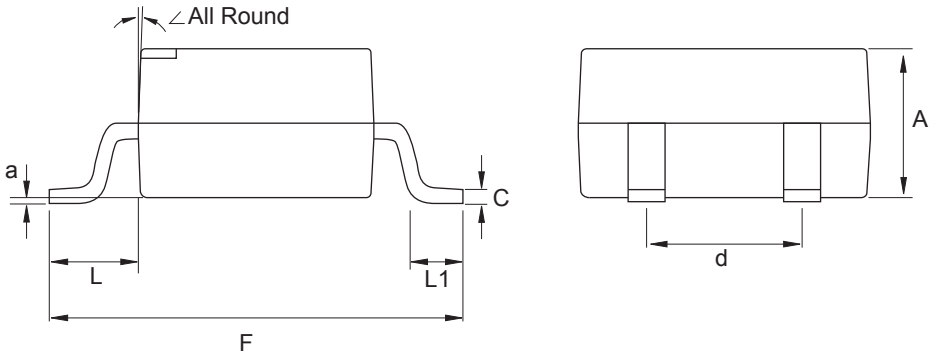
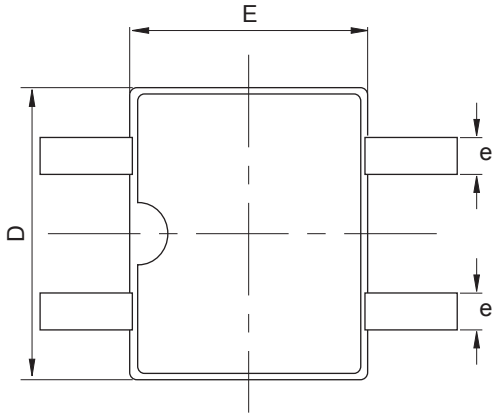


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



PACKAGE DIMENSION (MBS)





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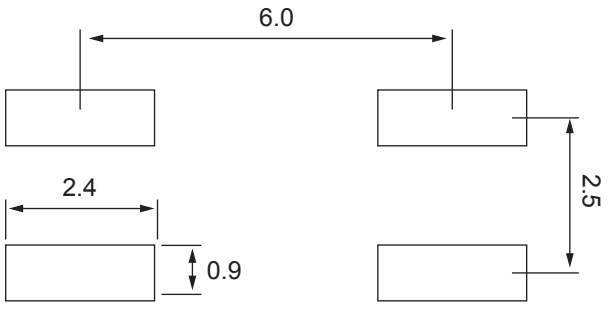
RECOMMENDED PAD DIMENSION

(Unit : mm)



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1. The products described in this data are intended to be used in general-purpose electronic equipment (Office equipment, telecommunication equipment, measuring equipment, home appliances)

2. When you intend to use these products with equipment or device which require an extremely high of reliability and special applications (such as automobile, air travel aerospace, transportation equipment, life support, system and safety devices) in which special quality and reliability and the failure or malfunction of products may directly jeopardize or harm the human body or damage to property and any application other than the standard application intended, please be sure to consult with our sales representative in advance.

3. On designing your application, please use product within the ranges guaranteed by KEC for maximum rating, operating supply voltage range, heat radiation characteristics and other characteristics. User shall be responsible for failure or damage when used beyond the guaranteed ranges.

4. The technical information described in this data is limited to showing representative characteristics and applied circuit examples of the products and it does not constitute the warranting of industrial property, the granting of relative rights, or the granting of any license.

5. What are described in the data may be changed without any prior notice to reflect new technical development. Please confirm that you have received the latest product standards or specification before final design, purchase or use.

6. Although KEC is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors. Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. KEC shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by KEC.

For additional information,
please contact your local Sales Representative.

SOUTH KOREA (Headquarters)
KEC CORPORATION
PHONE : +82-2-2025-5000
sales@kec.co.kr

JAPAN
KEC JAPAN CO.,LTD.
PHONE : +81-03-5475-2691
kec_jp@kec.co.kr

SINGAPORE
KEC SINGAPORE PTE., LTD.
PHONE : +65-6748-7372(#102)
kec_twn@kec.co.kr

THAILAND
KEC THAILAND BANGKOK OFFICE
PHONE : +66-2-576-1484~5
kec_th@kec.co.kr

CHINA
KEC SHANGHAI CO.,LTD.
PHONE : +86-21-5490-2277
kec_sh@kec.co.kr

KEC SHENZHEN OFFICE
PHONE : +86-755-8882-9198
kec_hk@kec.co.kr

KEC TIANJIN OFFICE
PHONE : +86-21-5490-2277
kec_sh@kec.co.kr

HONG KONG
KEC HK CORP. LTD
PHONE : +852-2249-3734
kec_hk@kec.co.kr

TAIWAN
KEC TAIWAN CO.,LTD.
PHONE : +886-2-2515-8359
kec_twn@kec.co.kr

U.S.A
KEC AMERICA CORP.
PHONE : +1-714-259-0662
kec_a@kec.co.kr

KECCORP.COM
KEC.CO.KR