

Surface Mount Super fast Recovery Bridge Rectifier Reverse Voltage 100 to 600 Volts Forward Current 1.0 Amperes

Features

- Super fast reverse recovery time
- Low Forward Voltage Drop
- Glass Passivated Chip Junction
- Low reverse leakage
- High surge current capability
- Low profile package
- Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

Case : ABS/LBF molded plastic body

Terminals : Solderable per MIL-STD-750, method 2026

Mounting Position : Any

Weight : 88mg/0.0031oz (approximate)

Maximum Ratings Characteristics

Ratings at $T_A = 25^\circ\text{C}$ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

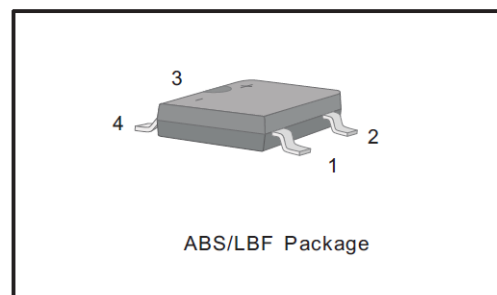
Parameter		Symbol	EABS11	EABS12	EABS14	EABS16	Unit
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	100	200	400	600	V
Maximum RMS voltage		V _{RMS}	70	140	280	420	V
Maximum DC Blocking Voltage		V _{DC}	100	200	400	600	V
Maximum Average Rectified Output Current at T _C =125°C		I _{F(AV)}	1.0				A
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load		I _{FSM}	30				A
Maximum instantaneous forward voltage at I _o		V _F	0.95		1.25	1.70	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _a = 25°C	I _R	5.0				uA
	T _a = 100°C		100				
Maximum Reverse Recovery Time ⁽¹⁾		t _{rr}	35				nS
Typical Junction Capacitance ⁽²⁾		C _j	15				pF
Typical Thermal resistance ⁽³⁾		R _{θJA}	85				°C/W
Operating Storage Temperature Range		T _J , T _{STG}	-55 to +150				°C

Note

- (1) Reverse Recovery Time test condition : $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$
- (2) Measured at 1 MHz and applied reverse voltage of 4.0 VDC
- (3) Mounted on glass epoxy PC board with $4 \times 1.5'' \times 1.5''$ (3.81×3.81 cm) copper pad.

PINNING

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





Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise specified)

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

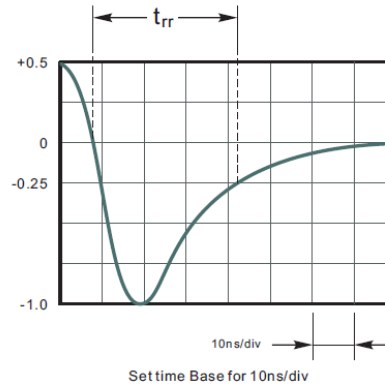
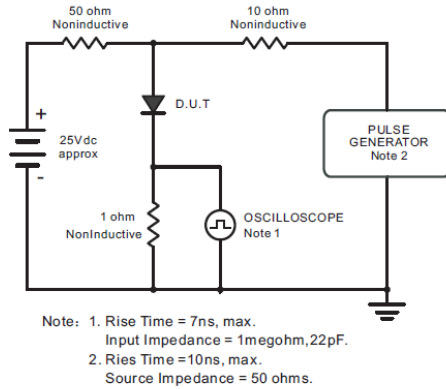


Fig.2 Maximum Average Forward Current Rating

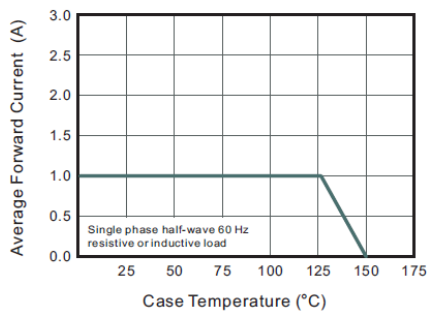


Fig.3 Typical Reverse Characteristics

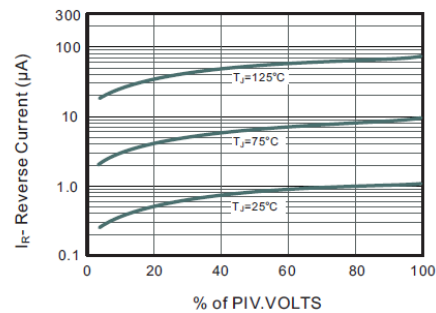


Fig.4 Typical Forward Characteristics

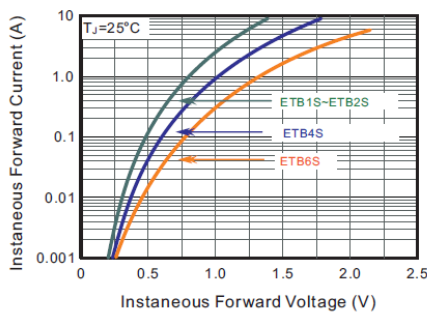


Fig.5 Typical Junction Capacitance

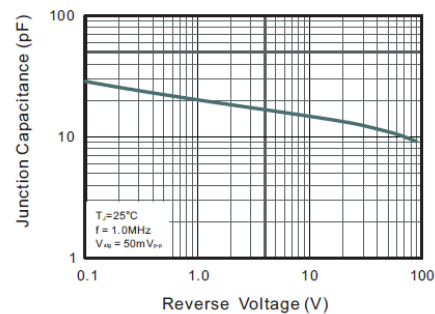
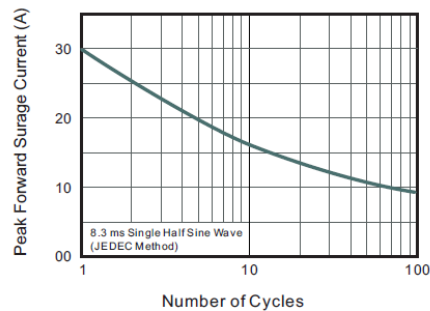


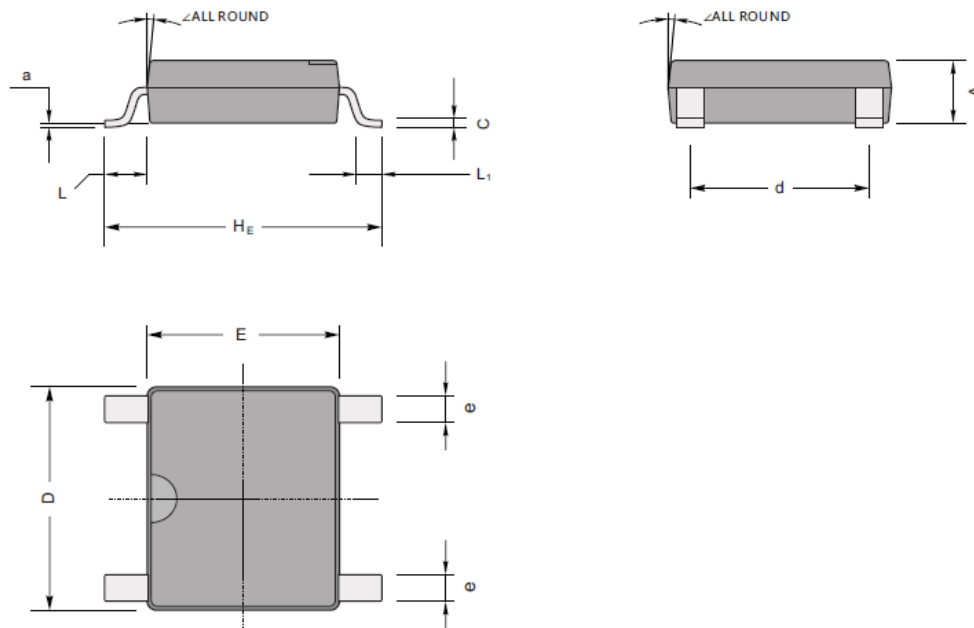
Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



Package Dimension

ABS / LBF

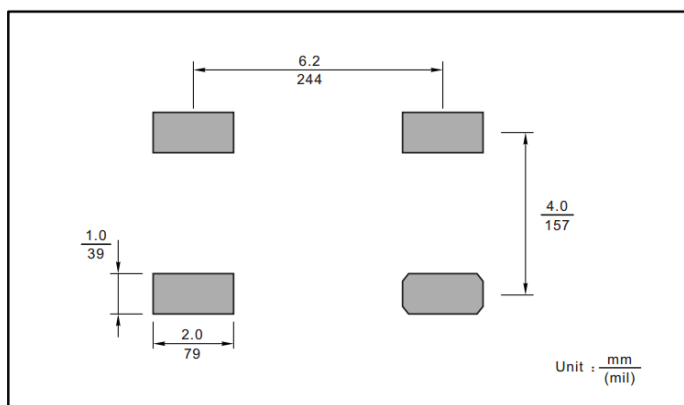
Plastic surface mounted package; 4 leads



ABS/LBF mechanical data

UNIT		A	C	D	E	H _E	d	e	L	L ₁	a	∠
mm	max	1.5	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.2	7°
	min	1.3	0.15	4.9	4.2	6.0	3.8	0.5				
mil	max	59	8.7	205	177	252	165	28	37	24	4	
	min	51	5.9	193	166	236	150	20				

The recommended mounting pad size



Marking

Type number	Marking code
EABS11	EABS11
EABS12	EABS12
EABS14	EABS14
EABS16	EABS16

REV. 00

Revision History

No	Date	Contents
0	2022-12-07	Initial Brief Datasheet Release

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Contact. **Tel** 82.70.4693.2299 **FAX** 82.70.4000.4009

E-mail: sales@apsemi.com

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