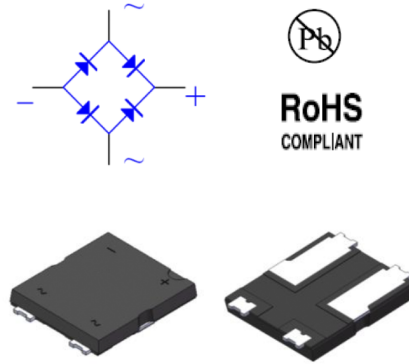


Features

- Glass passivated Bridge Rectifiers
- Ideal for automated placement
- Very low profile - max height 1.2 mm
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



Mechanical Data

- Case:E91,Molding compound meets UL 94V-0 flammability rating
- Terminals:Matte tin plated leads,solderable per MII-STD-750 Method 2026,J-STD-002 and JESD22-B102

case:
E91

Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for TV,Monitor,SMPS,Adapter, Printer,Audio equipment,and Home Applications application

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	E91406A	Unit
Maximum repetitive peak reverse voltage	VRRM	800	V
Maximum RMS voltage	VRMS	560	V
Maximum DC blocking voltage	VDC	800	V
Maximum average output rectified current	Io(AV) ¹⁾	4.0	A
	Io(AV) ²⁾	3.0	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	120	A
Rating for fusing (t≤8.3ms)	I ² t	60	A ² s
Operating junction and storage temperature range	TJ, TSTG	-55 to +150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	Typ.	Max.	Unit
Minimum Breakdown voltage	Ta=25°C,IR=100uA	V _{BR}	800		Volts
Instantaneous forward voltage	IF=2.0A,Ta=25°C	V _F	0.90	1.0	
	IF=4.0A ,Ta=25°C		0.96	1.1	
	IF=2.0A,Ta=125°C		0.78	0.85	
	IF=4.0A ,Ta=125°C		0.85	0.90	
Maximum DC reverse current at rated DC blocking voltage	Ta=25°C	I _R	5.0		μA
	Ta=125°C		100		
Typical junction capacitance	4.0 V, 1 MHz	C _J	32		pF

Note 1). mounted recommended copper pad areas with Al substrate PCB

2). mounted 13*13mm copper pad areas with FR-4 PCB

Thermal Characteristics (Ta=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	E91406A	Unit
Typical thermal resistance	junction to ambient ¹⁾	$R_{\theta JA}$	48.3	°C/W
	junction to case ¹⁾	$R_{\theta JC}$	13.7	
	junction to ambient ²⁾	$R_{\theta JA}$	34	
	junction to case ²⁾	$R_{\theta JC}$	10.4	

Note:1), The thermal resistance from junction to ambient and case, mounted on glass epoxy FR-4 P.C.B with recommended copper pads

2), The thermal resistance from junction to ambient and case, mounted on glass epoxy FR-4 P.C.B with 13*13mm copper pads

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

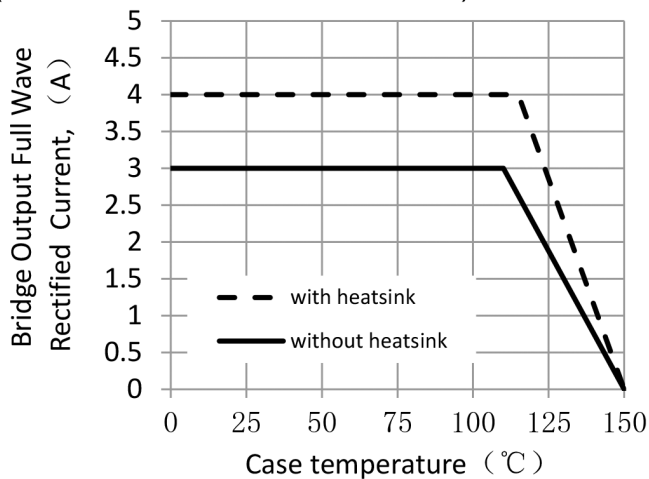


Figure 1. Forward Current Derating Curve

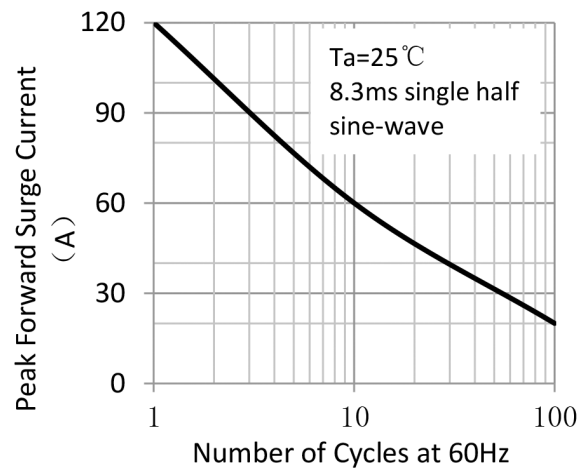


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

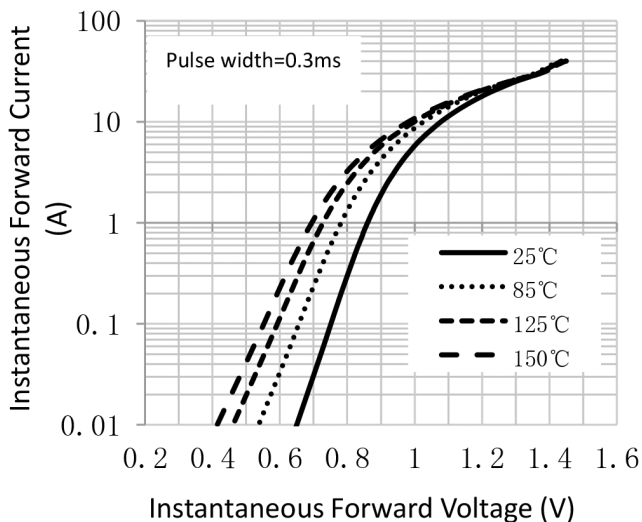


Figure 3. Typical Instantaneous Forward Characteristics

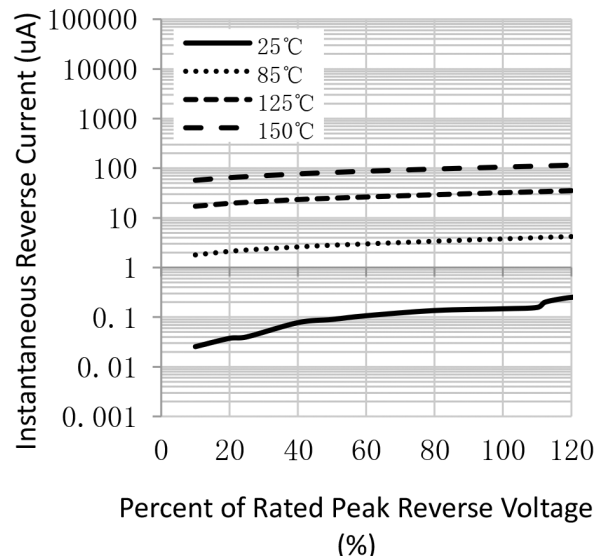
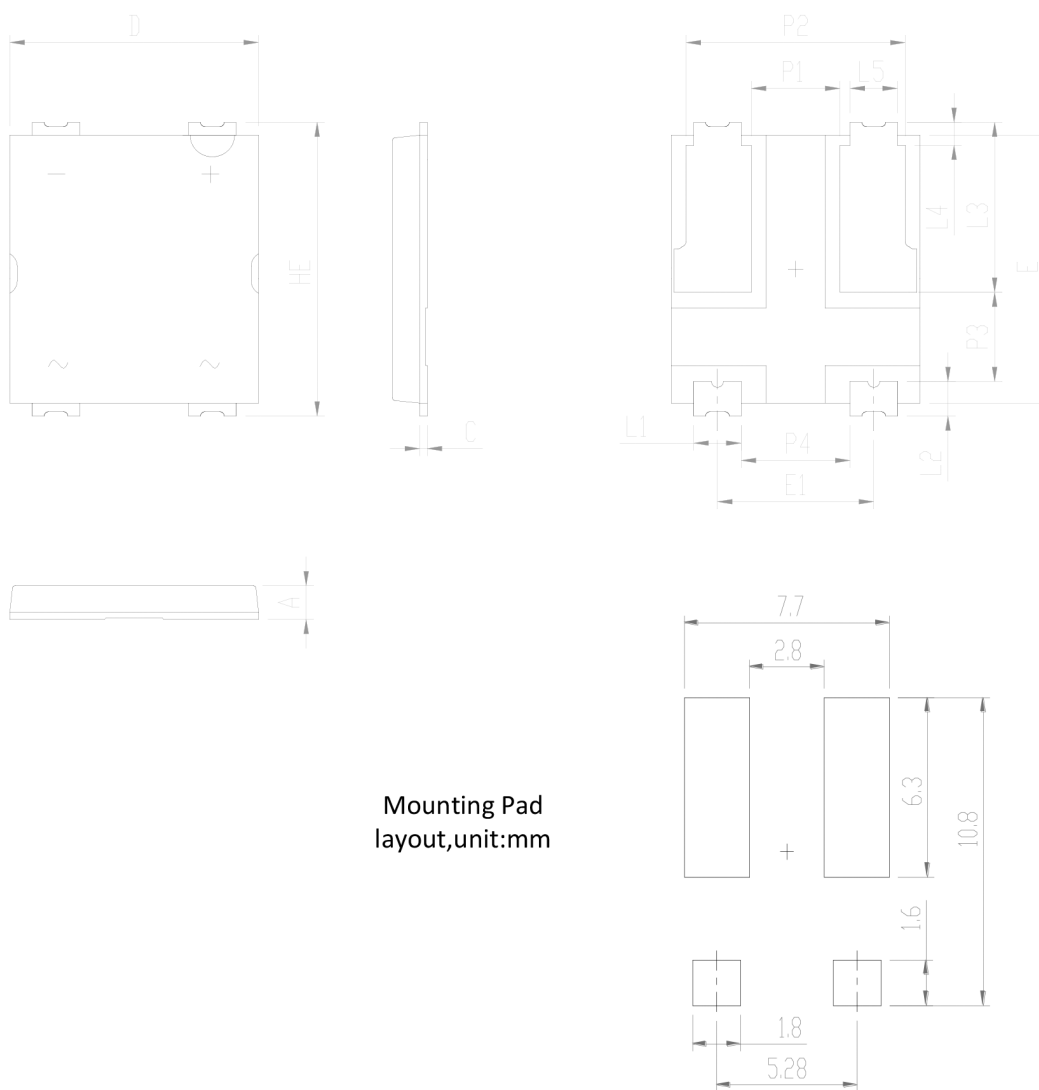


Figure 4. Typical Reverse Characteristics

Package Outline Dimensions



(Unit:mm)

Dim	Min	Nom.	Max	Dim	Min	Nom.	Max
A	1.10	1.17	1.20	L3	5.7	5.9	6.1
C	0.20	0.25	0.35	L4	0.6	0.80	1
D	8.3	8.4	8.6	L5	1.4	1.6	1.8
HE	10.0	10.2	10.4	P1	3.0 REF		
E	9.1	9.30	9.5	P2	7.4 REF		
E1	5.28 REF			P3	3.1 REF		
L1	1.4	1.60	1.80	P4	3.68 REF		
L2	1.0	1.2	1.4				