

■ **FEATURES**

- UL recognition, file #E313149
- Ideal for automated placement
- Glass passivated chip junction
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

■ **TYPICAL APPLICATIONS**

General purpose use in AC/DC bridge full wave rectification for SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

■ **MECHANICAL DATA**

- **Package:** ABS
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■ **MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ABS1502	ABS1504	ABS1506	ABS1508	ABS1510
Device marking code			ABS1502	ABS1504	ABS1506	ABS1508	ABS1510
Maximum Repetitive Peak Reverse Voltage	VRRM	V	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, $T_c=127^{\circ}\text{C}$	IO	A	1.5				
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	50				
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$			100				
Current squared time @1ms<t<8.3ms $T_j=25^{\circ}\text{C}$, Rating of per diode	I ² t	A ² s	10.4				
Storage temperature	Tstg	°C	-55 ~ +150				
Junction temperature	Tj	°C	-55 ~ +150				

■ **ELECTRICAL CHARACTERISTICS** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	ABS1502	ABS1504	ABS1506	ABS1508	ABS1510
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =0.7A	0.95				
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5				
			T _j =125°C	100				
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	17				

■ THERMAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	ABS1502	ABS1504	ABS1506	ABS1508	ABS1510
Thermal Resistance	Between junction and ambient	R _{θJ-A}	°C/W	62.5				
	Between junction and lead	R _{θJ-L}		25.0				
	Between junction and case	R _{θJ-C}		8.0				

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm

■ PACKAGING INFORMATION

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ABS1502-ABS1510	F1	Approximate 0.095	4000	/	64000	13" reel
ABS1502-ABS1510	F5	Approximate 0.095	5000	/	80000	13" reel

■ CHARACTERISTICS (TYPICAL)

FIG1: I_o-T_c Curve

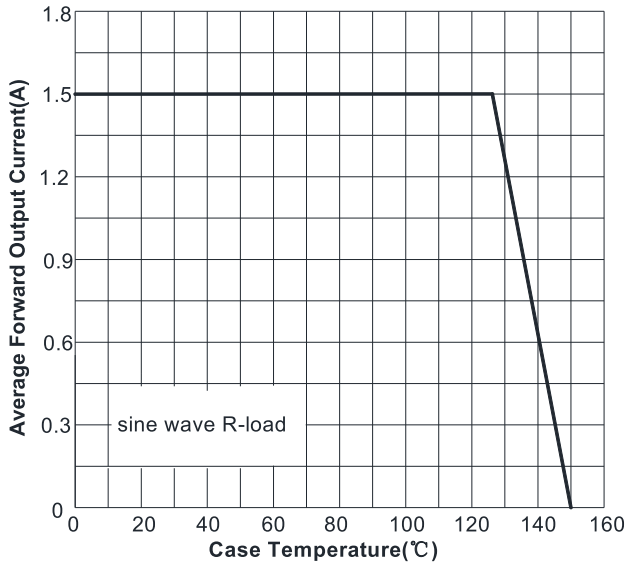


FIG2: Surge Forward Current Capability

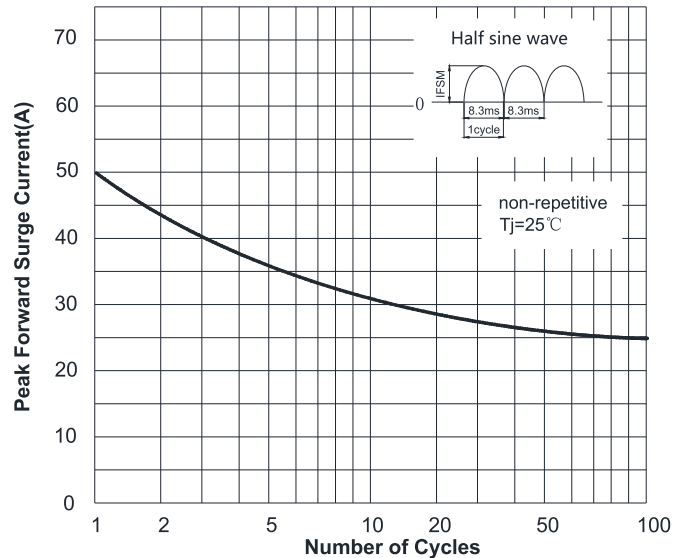


FIG3: Typical Forward Voltage

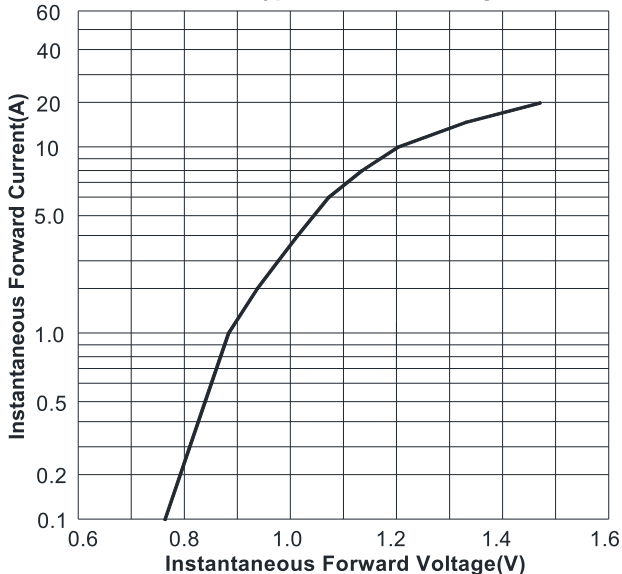
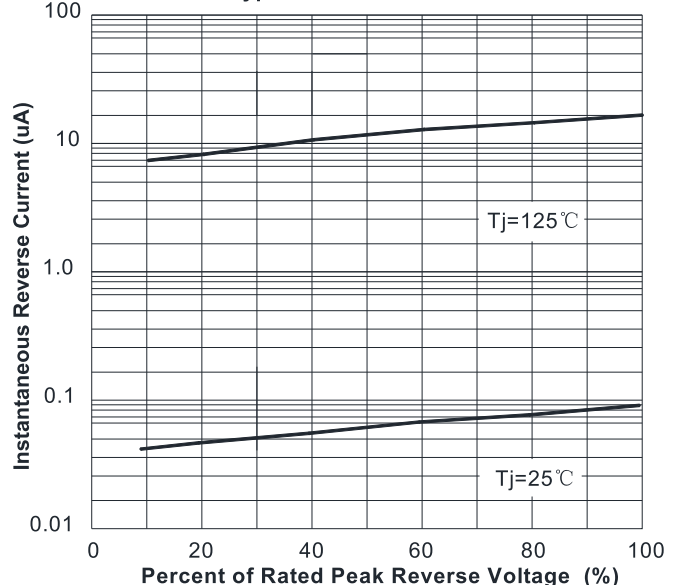
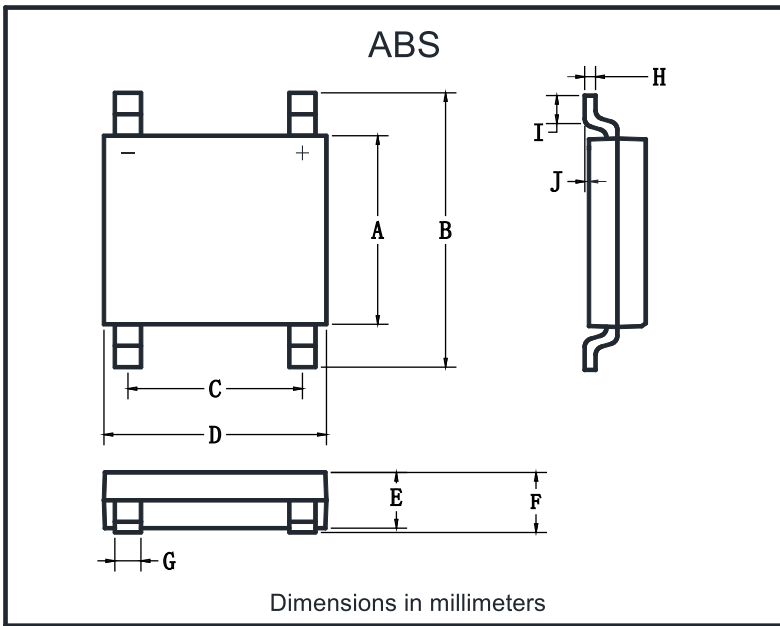


FIG4: Typical Reverse Characteristics

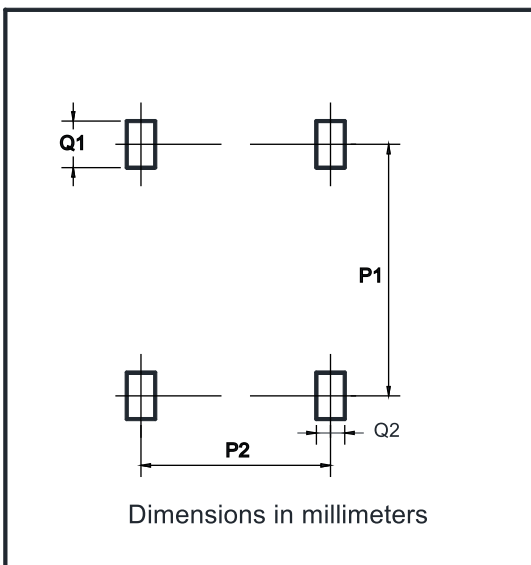


■ **OUTLINE DIMENSIONS**



ABS		
Dim	Min	Max
A	4.30	4.50
B	6.00	6.40
C	3.90	4.10
D	4.90	5.10
E	1.25	1.45
F	1.60 Max	
G	0.60	0.70
H	0.15	0.25
I	0.30	0.80
J	0.02	0.15

■ **SUGGESTED PAD LAYOUT**



Dim	Min
P1	5.72
P2	4.00
Q1	1.00
Q2	0.90