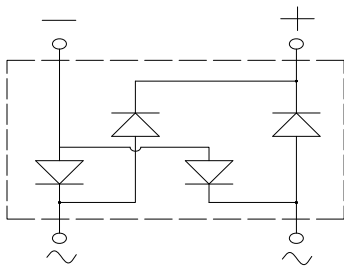
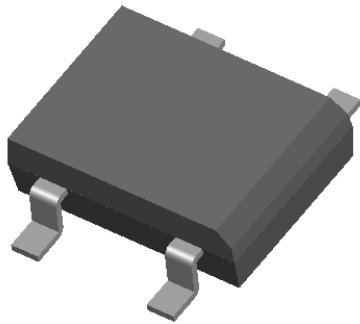


## Bridge Rectifiers



### Features

- UL recognition, file #E313149
- Glass passivated chip junction
- Ideal for automated placement
- 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:** DBLS  
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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Device marking code			DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T <sub>c</sub> =120°C	I <sub>O</sub>	A	3.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	80						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			160						
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	26.56						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5						
			T <sub>j</sub> =125°C	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	23						



# DBL301S THRU DBL307S

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Typical Thermal Resistance	R <sub>θJ-A</sub>	°C/W	38						
	R <sub>θJ-L</sub>		14						
	R <sub>θJ-C</sub>		5						

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

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DBL301S~DBL307S	B1	Approximate 0.32	50	5000	20000	TUBE
DBL301S~DBL307S	F1	Approximate 0.32	1500	3000	21000	REEL

## ■ Characteristics (Typical)

FIG1:I<sub>o</sub>-T<sub>c</sub> Curve

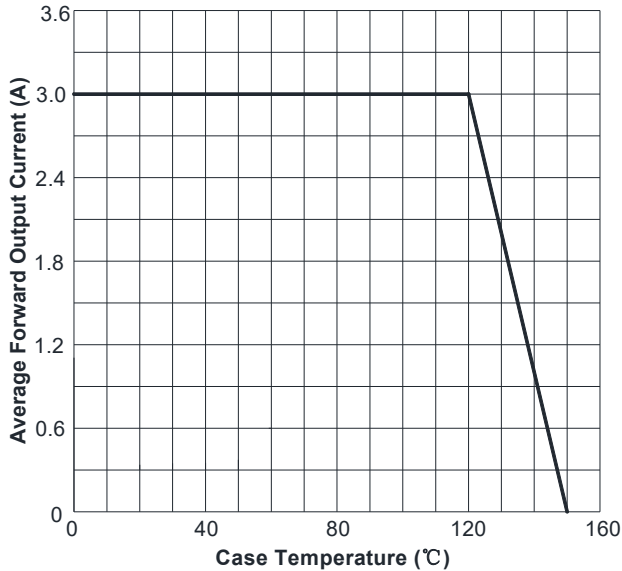


FIG2:Surge Forward Current Capability

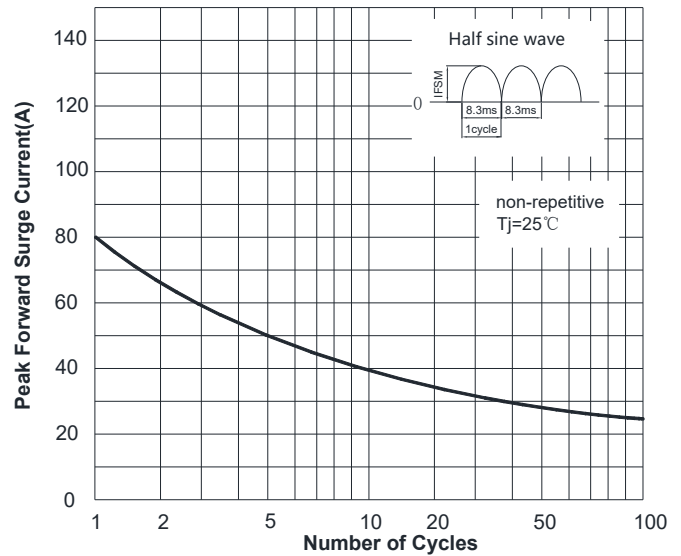


FIG3: Typical Forward Voltage

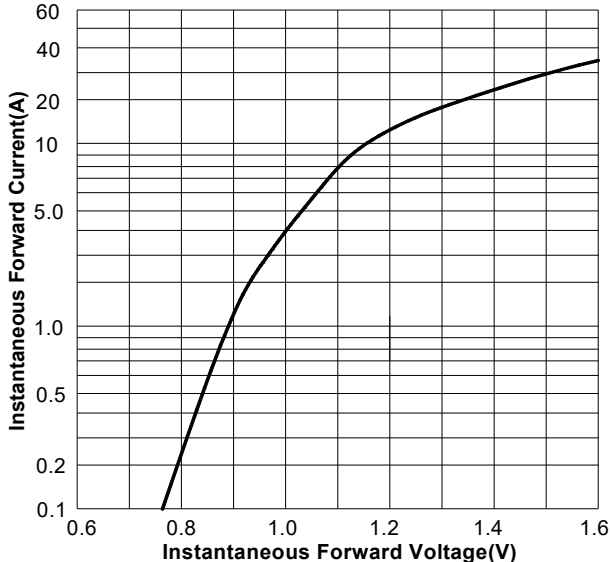
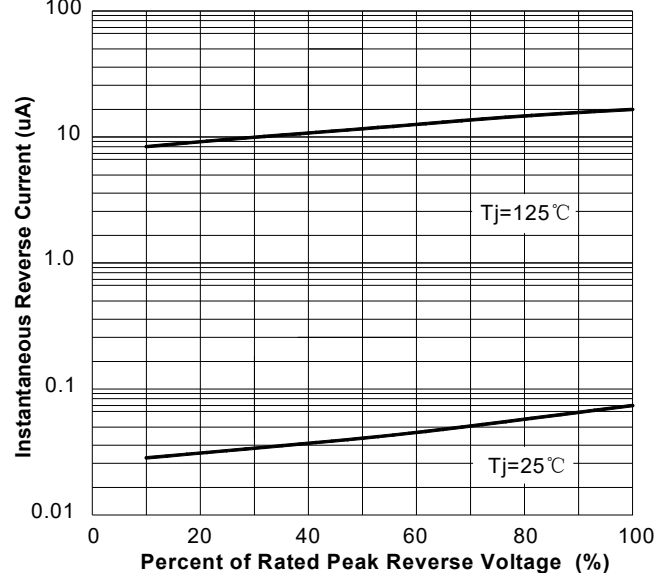


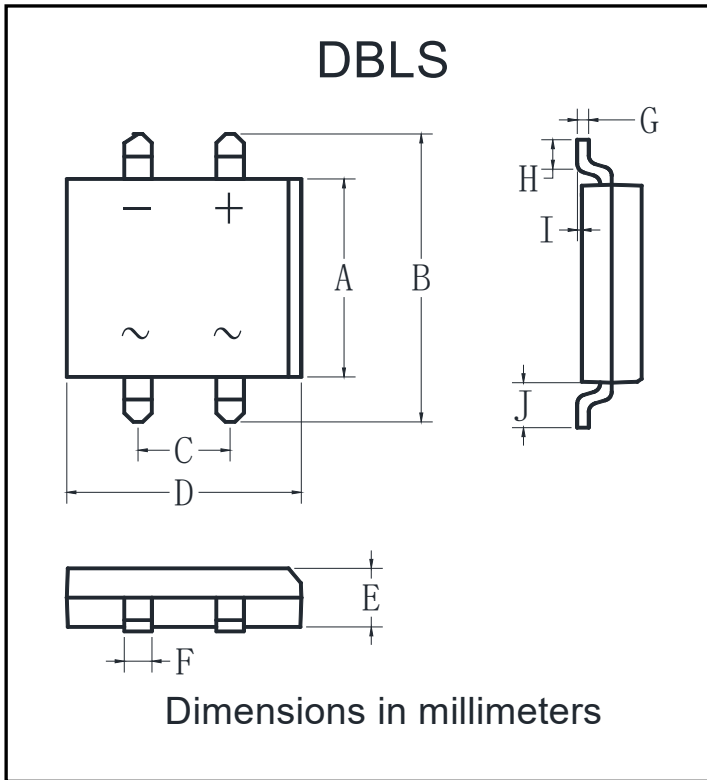
FIG4:Typical Reverse Characteristics





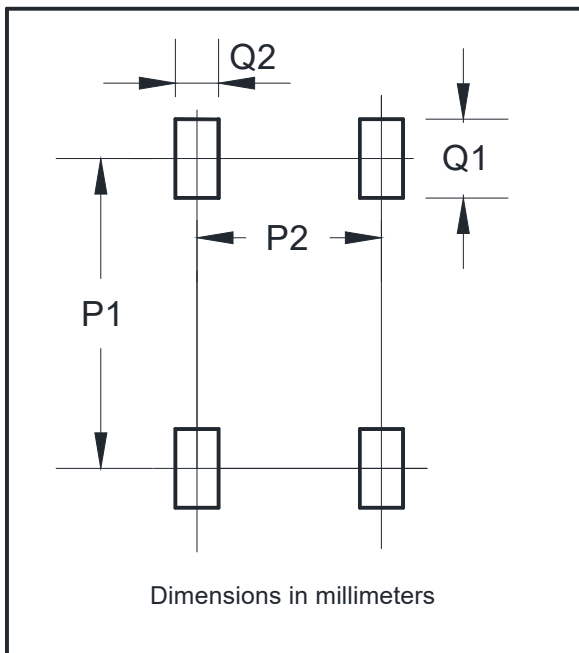
# DBL301S THRU DBL307S

## ■ Outline Dimensions



DBLS		
Dim	Min	Max
A	6.20	6.50
B	9.60	10.30
C	5.00	5.20
D	8.13	8.51
E	2.35	2.45
F	1.02	1.2
G	0.22	0.33
H	1.02	1.53
I	0	0.30
J	1.80	2.10

## ■ Suggested pad layout



Dim	Min
P1	8.73
P2	5.12
Q1	2.22
Q2	1.2



## DBL301S THRU DBL307S

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