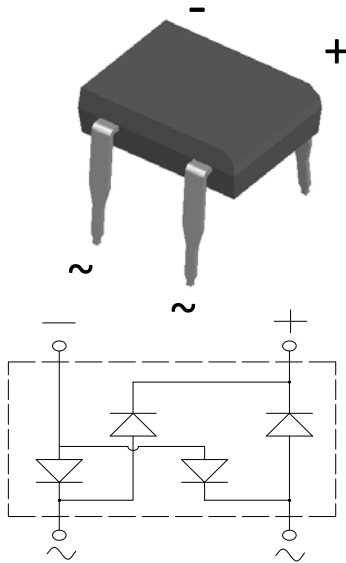


## Bridge Rectifiers



### Features

- UL recognition, file #E313149
- Glass passivated chip junction
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### 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:** DBL  
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	DBL101	DBL102	DBL103	DBL104	DBL105	DBL106	DBL107
Device marking code			DBL101	DBL102	DBL103	DBL104	DBL105	DBL106	DBL107
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, $T_c=134^\circ\text{C}$	IO	A	1.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	30						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$			60						
Current squared time @1ms $\leq t \leq 8.3$ ms $T_j=25^\circ\text{C}$ , Rating of per diode	$I^2t$	A <sup>2</sup> s	3.7						
Storage temperature	$T_{stg}$	°C	-55 ~ +150						
Junction temperature	$T_j$	°C	-55 ~ +150						

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DBL101	DBL102	DBL103	DBL104	DBL105	DBL106	DBL107
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	IFM=0.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	$T_j=25^\circ\text{C}$	5						
			$T_j=125^\circ\text{C}$	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	12						



# DBL101 THRU DBL107

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

PARAMETER	SYMBOL	UNIT	DBL101	DBL102	DBL103	DBL104	DBL105	DBL106	DBL107
Typical Thermal Resistance	R <sub>θJ-A</sub>	°C/W	40.0						
	R <sub>θJ-L</sub>		15.0						
	R <sub>θJ-C</sub>		8.0						

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
DBL101 ~ DBL107	B1	Approximate 0.37	50	2500	10000	Tube

## ■ Characteristics (Typical)

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

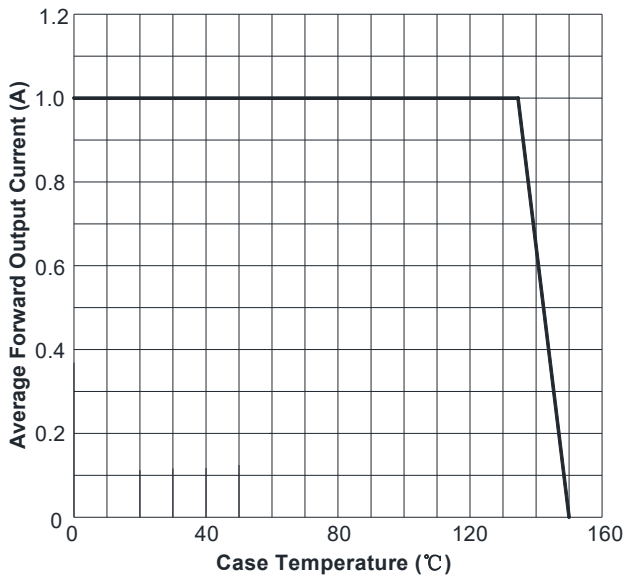


FIG2: Surge Forward Current Capability

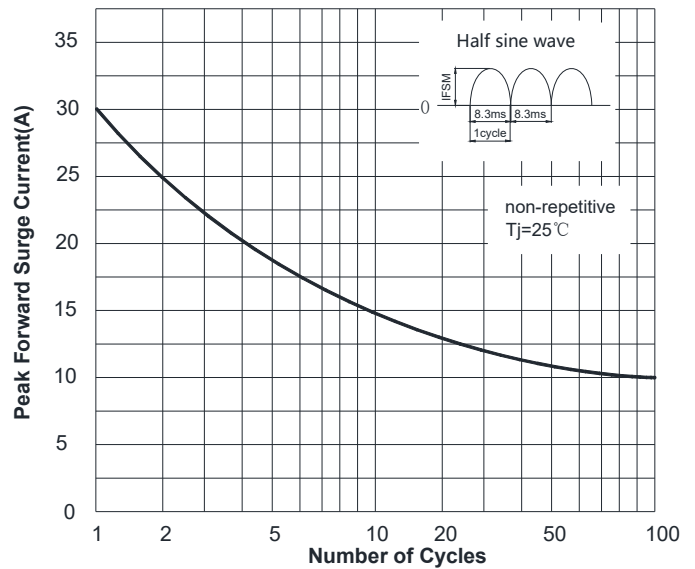


FIG3: Typical Forward Voltage

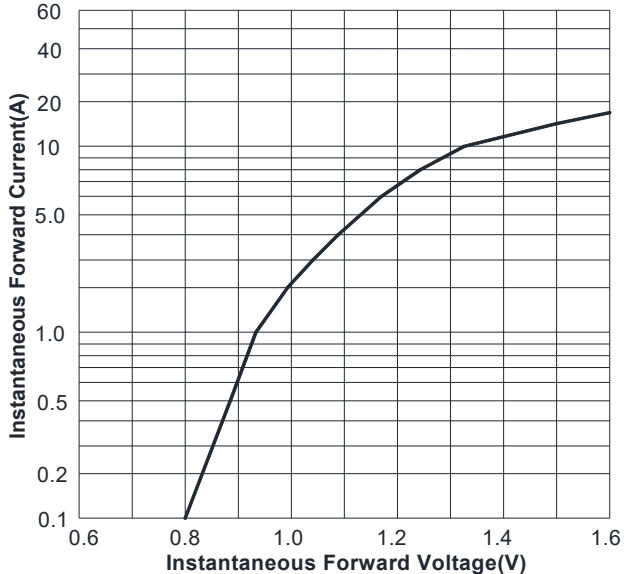
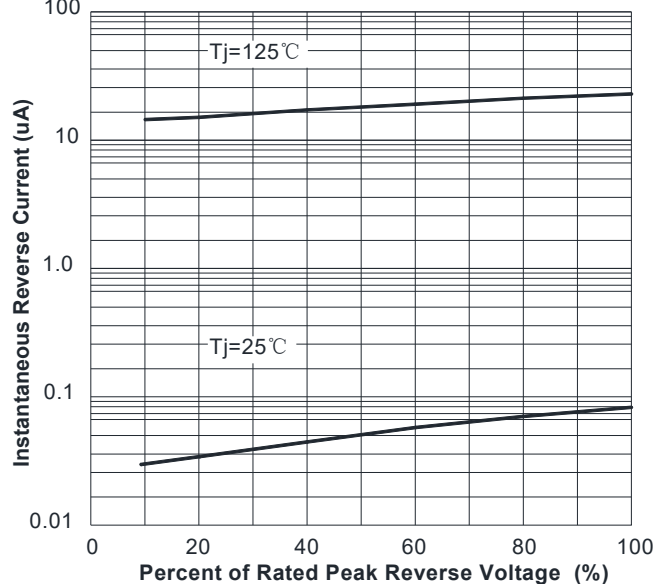


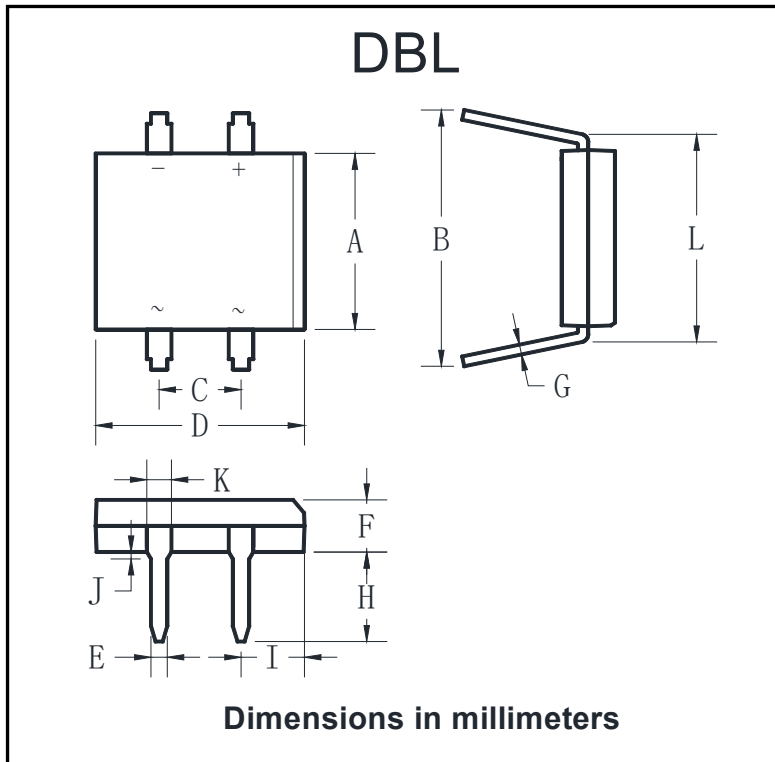
FIG4: Typical Reverse Characteristics





## DBL101 THRU DBL107

### ■ Outline Dimensions



DBL		
Dim	Min	Max
A	6.20	6.50
B	7.60	8.90
C	5.00	5.20
D	8.13	8.51
E	0.46	0.58
F	2.35	2.45
G	0.22	0.33
H	3.81	4.69
I	1.39	1.90
J	1.27	2.03
K	0.89	1.14
L	7.24	8.00



## DBL101 THRU DBL107

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