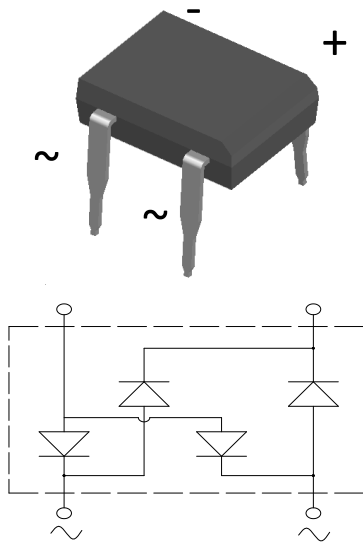


## Bridge Rectifiers



### Features

- UL recognition, file #E313149
- 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:** DB  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **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	DF15005	DF1501	DF1502	DF1504	DF1506	DF1508	DF1510
Repetitive peak reverse voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T <sub>a</sub> =40 °C	I <sub>O</sub>	A	1.5						
Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, T <sub>j</sub> =25 °C	I <sub>FSM</sub>	A	60						
Current squared time @1ms≤t≤3.3ms T <sub>j</sub> =25 °C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	15						
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	DF15005	DF1501	DF1502	DF1504	DF1506	DF1508	DF1510
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =0.7A	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	5						

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

PARAMETER	SYMBOL	UNIT	DF15005	DF1501	DF1502	DF1504	DF1506	DF1508	DF1510
Thermal Resistance	$R_{\theta JA(1)}$	$^{\circ}\text{C}/\text{W}$	68.0						
	$R_{\theta JL}$		15.0						

Note  
 (1) Thermal resistance from Between junction and ambient, On glass-epoxi substrate.

■ **Ordering Information (Example)**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DF15005 ~ DF1510	B1	Approximate 0.39	50	2500	10000	Tube

■ **Characteristics (Typical)**

FIG1:  $I_o$ - $T_a$  Curve

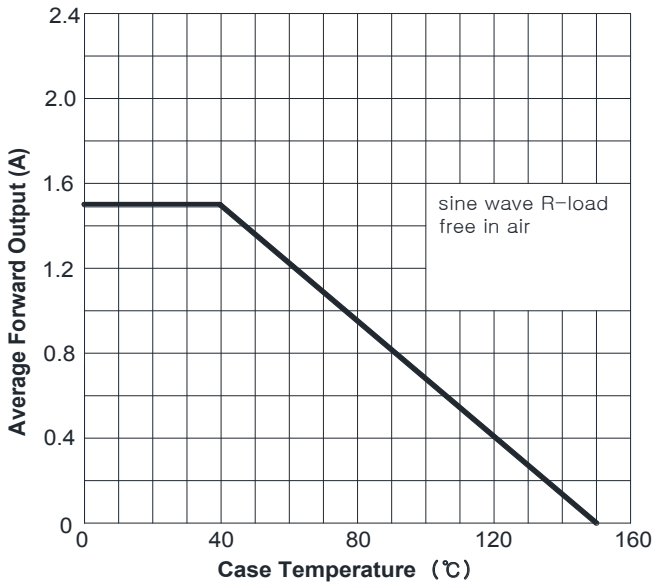


FIG2: Surge Forward Current Capability

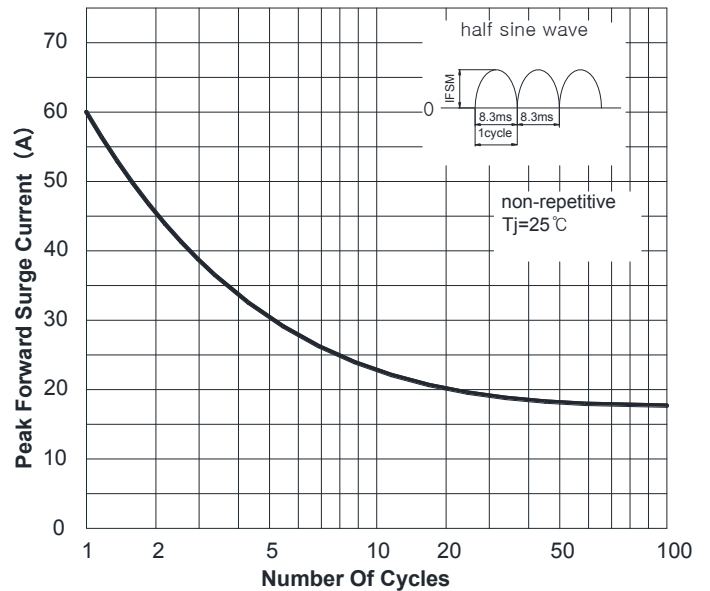


FIG3: Forward Voltage

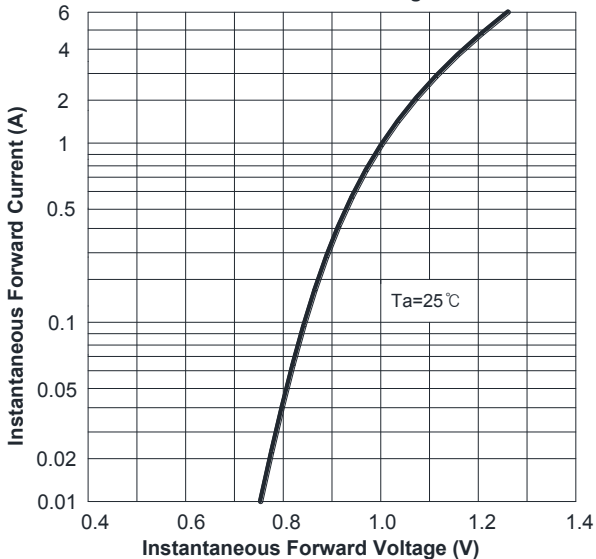
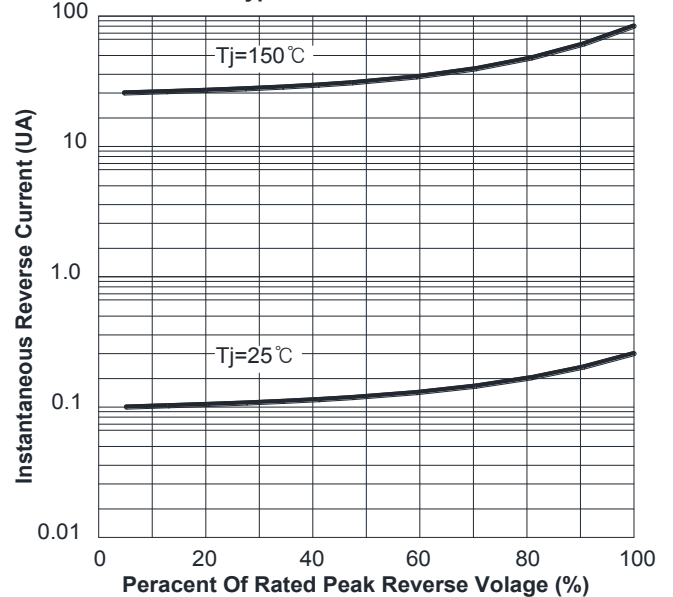
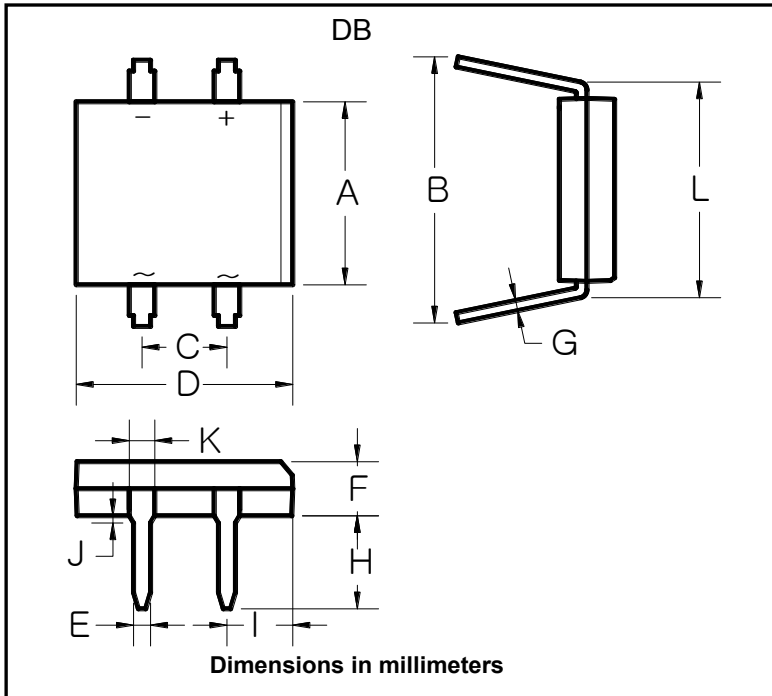


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



DB		
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	2.80	3.30
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