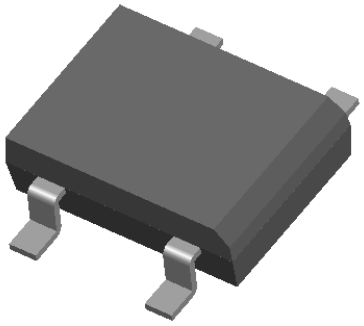
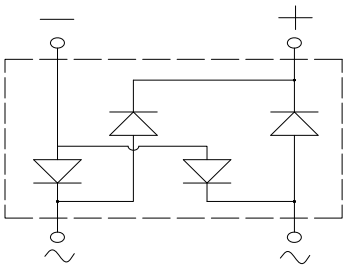
Bridge Rectifiers





Features

- 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_a=25℃ Unless otherwise specified）

PARAMETER	SYMBO	UNIT	DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Device marking code			DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Tc=120℃	I_O	A	3.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	80						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			160						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode	I^2t	A^2s	26.56						
Storage temperature	T_{stg}	℃	-55 ~ +150						
Junction temperature	T_j	℃	-55 ~ +150						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=1.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5						
			T_j=125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	23						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	DBL301S	DBL302S	DBL303S	DBL304S	DBL305S	DBL306S	DBL307S
Typical Thermal Resistance	$R_{\theta J-A}$	℃/W	38						
	$R_{\theta J-L}$		14						
	$R_{\theta J-C}$		5						

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

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM 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:Io-Tc Curve

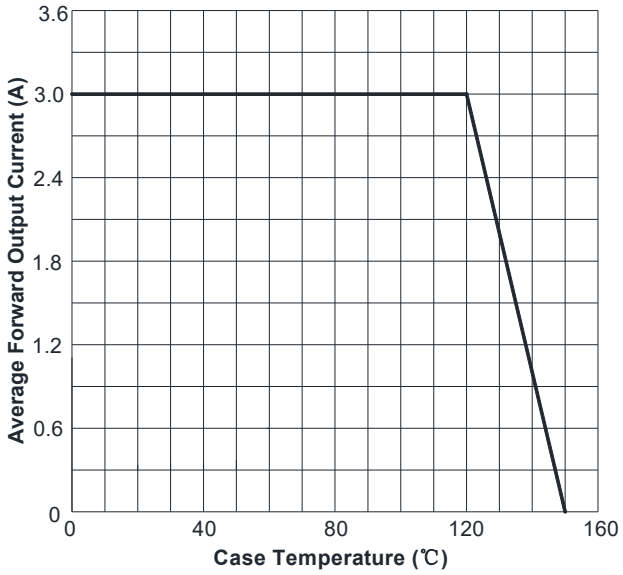


FIG2:Surge Forward Current Capability

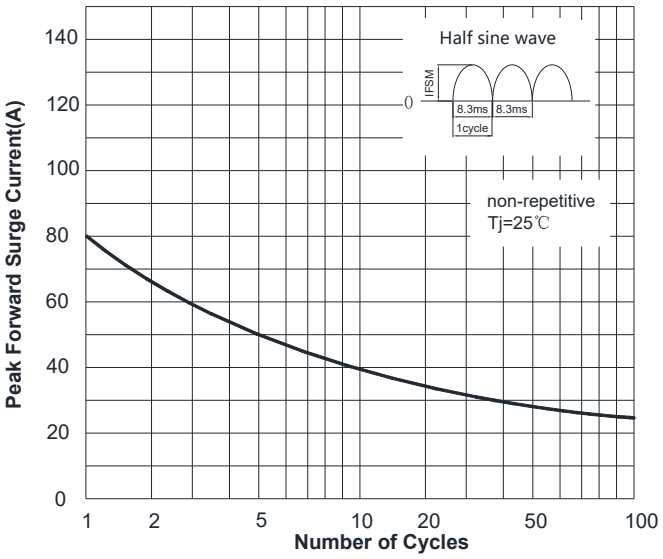


FIG3: Typical Forward Voltage

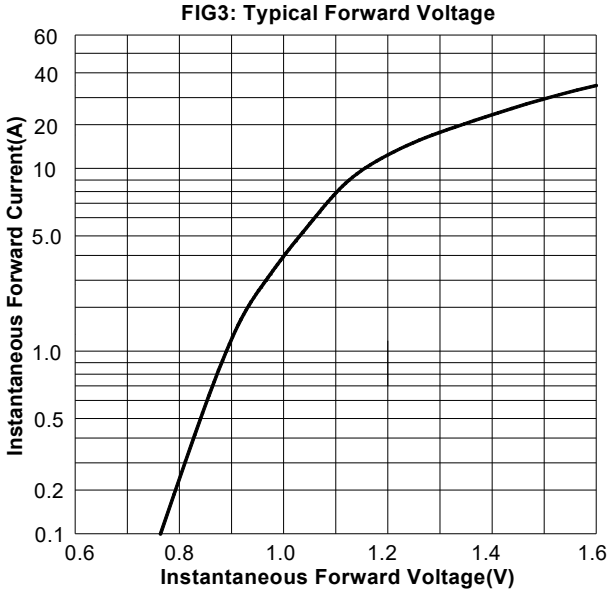
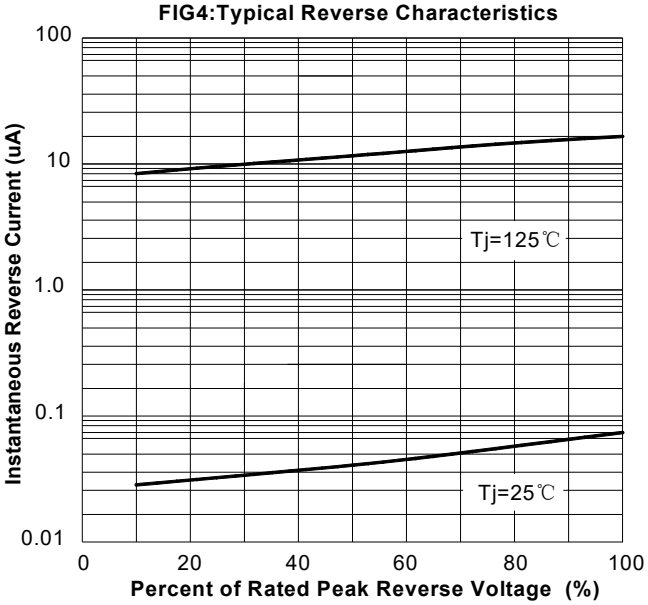
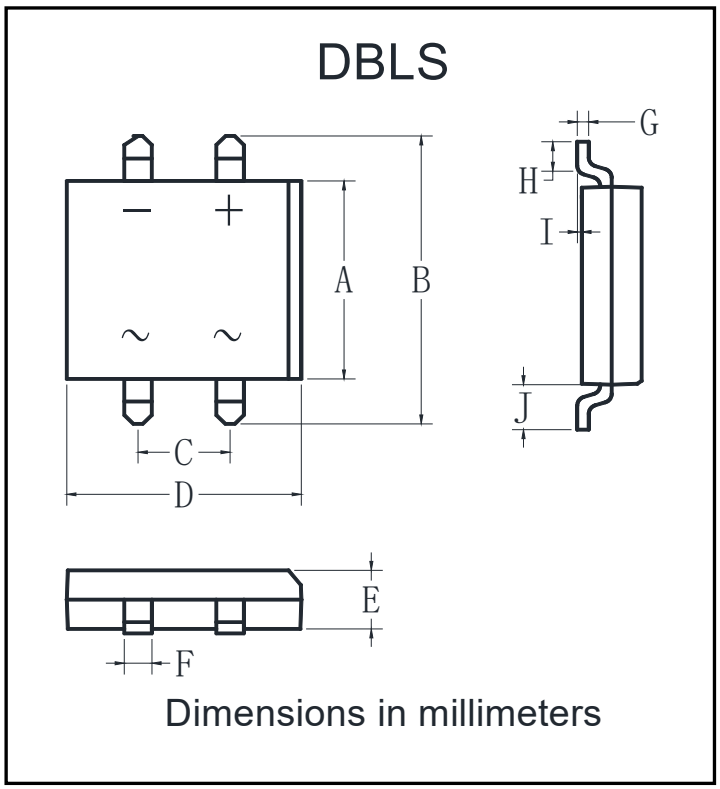


FIG4:Typical Reverse Characteristics

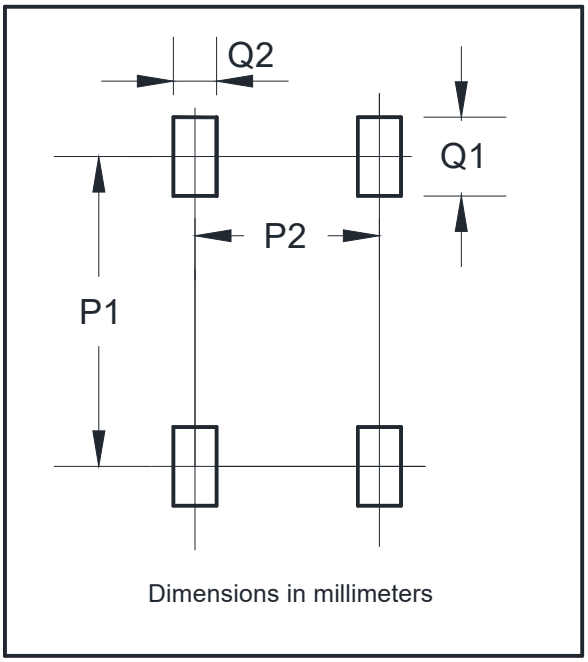


■ Outline Dimensions



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

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