

■ **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:** DBS
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	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S
Device marking code			DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S
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, $T_c=126^{\circ}\text{C}$	I_O	A	1.5						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	I_{FSM}	A	60						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$			120						
Current squared time @1ms $\leq t \leq 8.3\text{ms}$ $T_j=25^{\circ}\text{C}$, Rating of per diode	I^2t	A^2s	14.9						
Storage temperature	T_{stg}	$^{\circ}\text{C}$	-55 ~ +150						
Junction temperature	T_j	$^{\circ}\text{C}$	-55 ~ +150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S
Maximum instantaneous forward voltage drop per diode	V _F	V	$I_{FM}=0.7\text{A}$	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	$T_j=25^{\circ}\text{C}$	5						
			$T_j=125^{\circ}\text{C}$	100						
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	19						

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

PARAMETER	SYMBOL	UNIT	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S
Typical Thermal Resistance	R θ J-A	$^{\circ}\text{C}/\text{W}$	40.0						
	R θ J-L		15.0						
	R θ J-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)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DB151S ~ DB157S	B1	Approximate 0.34	50	5000	20000	TUBE
DB151S ~ DB157S	F1	Approximate 0.34	1500	3000	21000	REEL

■ **CHARACTERISTICS (TYPICAL)**

FIG1: I_o - T_c Curve

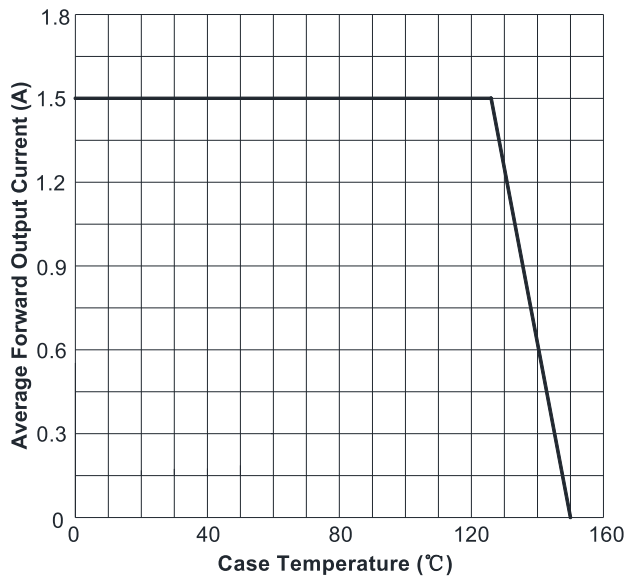


FIG2: Surge Forward Current Capability

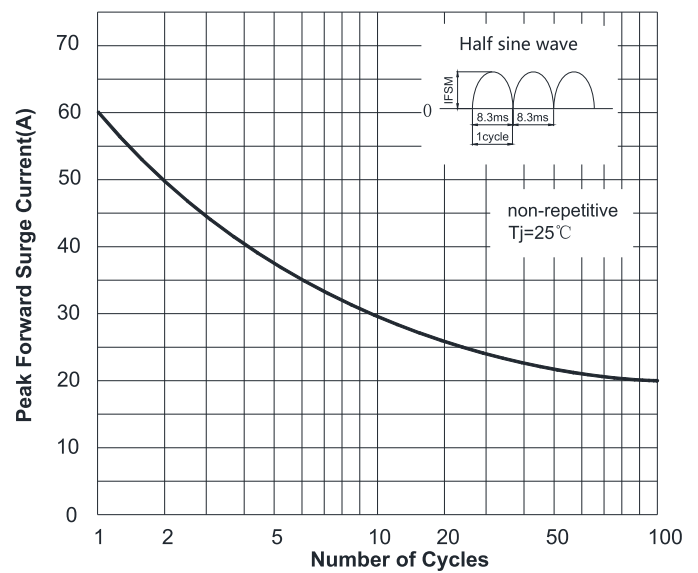


FIG3: Typical Forward Voltage

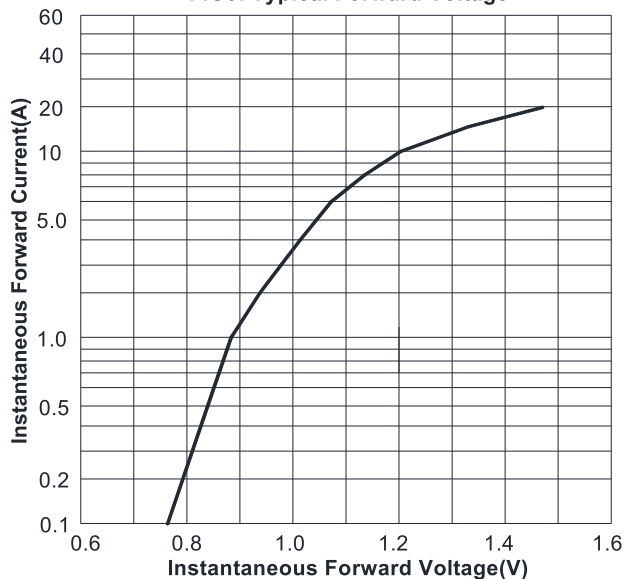
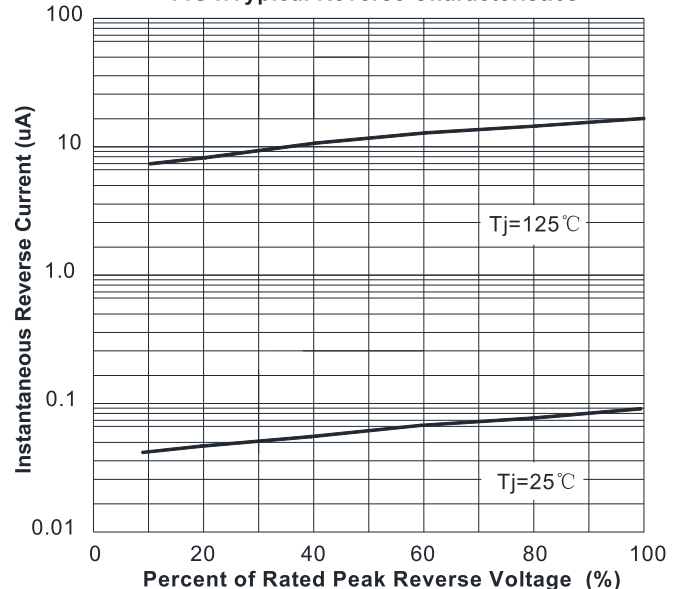
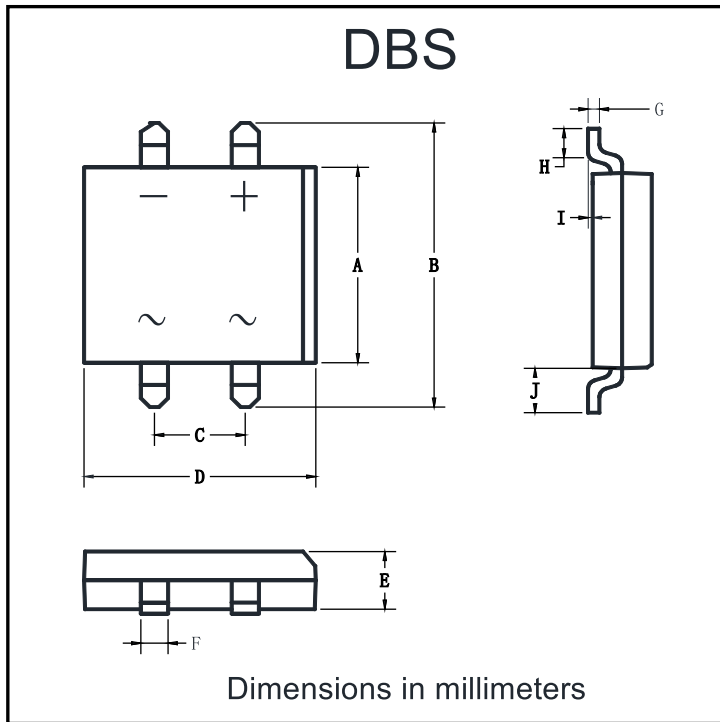


FIG4: Typical Reverse Characteristics

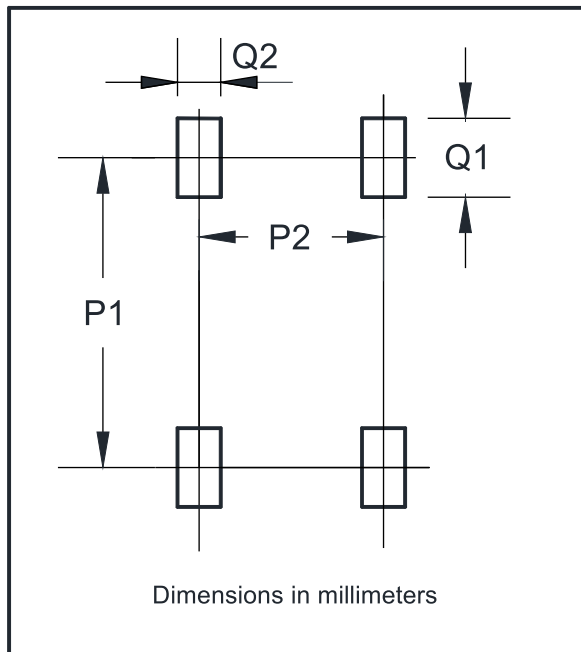


■ **OUTLINE DIMENSIONS**



DBS		
Dim	Min	Max
A	6.20	6.50
B	9.60	10.30
C	5.00	5.20
D	8.13	8.51
E	2.80	3.30
F	1.02	1.2
G	0.22	0.33
H	1.02	1.53
I	0.076	0.33
J	1.80	2.10

■ **SUGGESTED PAD LAYOUT**



Dim	Min
P1	8.73
P2	5.12
Q1	2.22
Q2	1.2