WILLAS

DB101S THRU DB107S

SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

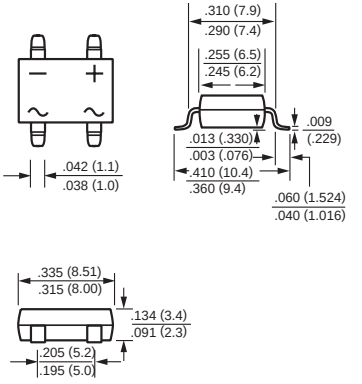
FEATURES

* Surge overload rating - 50 amperes peak
* Ideal for printed circuit board
* Reliable low cost construction utilizing molded
* Glass passivated device
* Polarity symbols molded on body
* Mounting position: Any
* Weight: 0.378 grams
* RoHS product for packing code suffix "G"
  Halogen free product for packing code suffix "H"

MECHANICAL DATA

* Epoxy : Device has UL flammability classification 94V-0
* UL listed the recognized component directory, file #E195711

DB-S



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At TA = 25℃ unless otherwise noted)

RATINGS	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at TA = 40℃	I_O	1							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40							Amps
Rating for fusing （t<8.3ms）	I^2t	6.6							A^2S
Typical Thermal Resistance (Note 2)	$R\theta_{JA}$	40							℃/W
	$R\theta_{JL}$	15							
	$R\theta_{JC}$	10							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							℃

ELECTRICAL CHARACTERISTICS (At TA = 25℃ unless otherwise noted)

CHARACTERISTICS		SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNITS
Element at 1.0A DC Maximum Forward Voltage Drop per Bridge		V_F	1.1							Volts
Maximum Reverse Current at rated	@TA = 25℃	I_R	5							uAmps
DC Blocking Voltage per element	@TA = 125℃		0.5							mAmps

NOTE: 1.Suffix "-s" Surface Mount for Dip Bridge.

2.Units mounted on P.C.B.with 0.5x0.5" (13x13mm) copper pads.

RATING AND CHARACTERISTIC CURVES (DB101S THRU DB107S)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

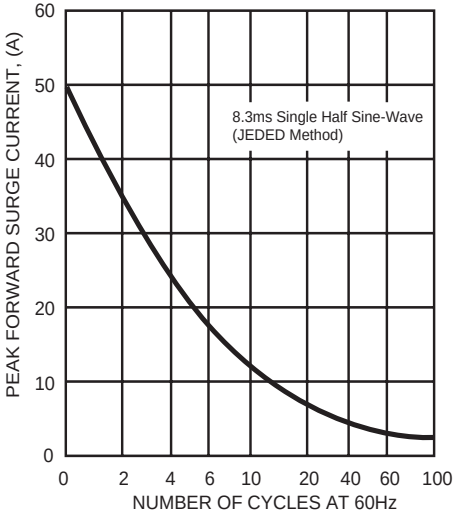


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

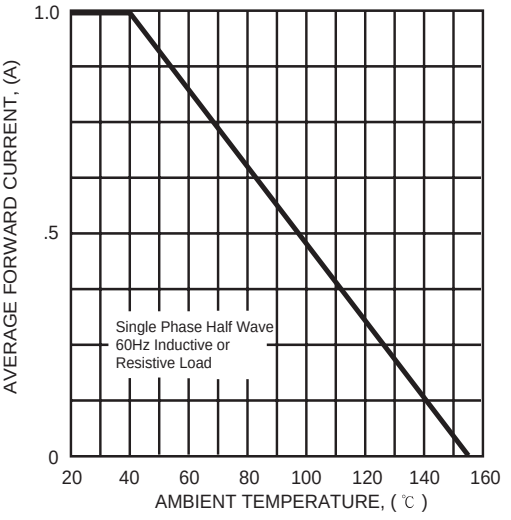


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

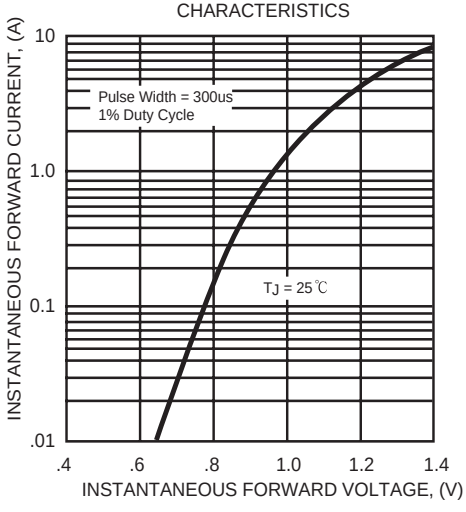


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS