DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

DB301S THRU DB307S

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECITFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 3.0 Amperes*

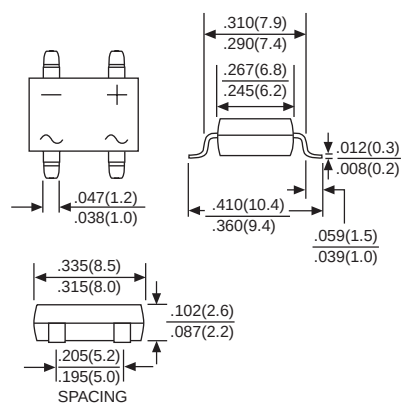
FEATURES

* Surge overload rating - 80 Amperes peak
* Ideal for printed circuit board
* Reliable low cost construction
* Glass passivated junction

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: Symbols molded or marked on body
* Mounting position: Any
* Weight: 0.38 gram

DB-1S



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		SYMBOL	DB301S	DB302S	DB303S	DB304S	DB305S	DB306S	DB307S	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 T_A =50°C		I_O	3.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	80							Amps
Maximum Forward Voltage Drop per Bridge Element at 3.0A DC		V_F	1.1							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	@T_A = 25°C	I_R	10							uAmps
	@T_A = 125°C		500							
I^2T RATING FOR FUSING(T<8.3ms)		I^2T	10.4							A^2Sec
Typical Junction Capacitance (Note 1)		C_J	25							pF
Typical Thermal Resistance (Note 2)		$R_{\theta JC}$	40							°C/W
Operating and Storage Temperature Range		T_J,T_{STG}	-55 to + 150							°C

NOTES : 1.Measured at 1 MHZ and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.

RATING AND CHARACTERISTIC CURVES (DB301S THRU DB307S)

FIG.
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

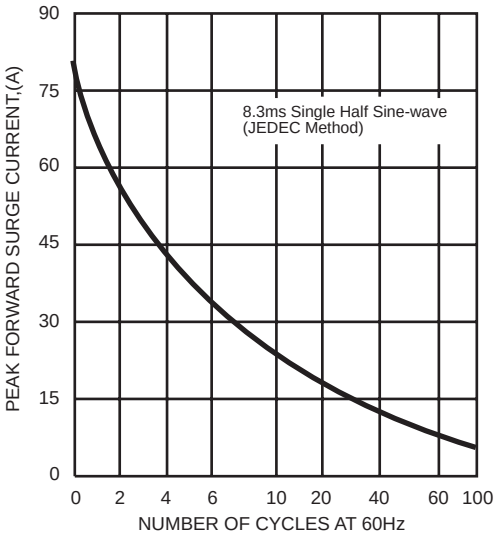


FIG. 2
TYPICAL FORWARD CURRENT
DERATING CURVE

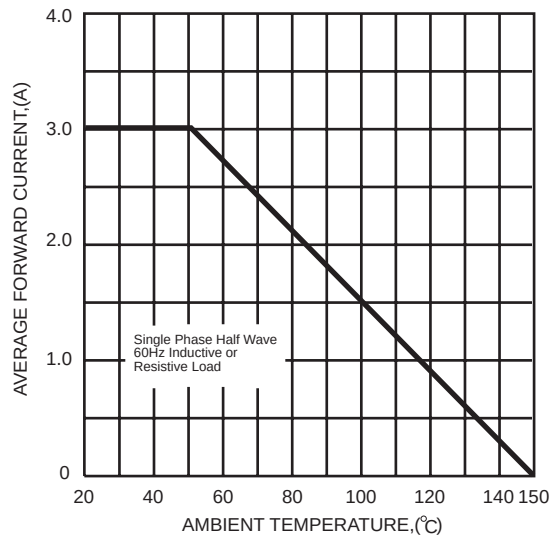


FIG. 3
TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

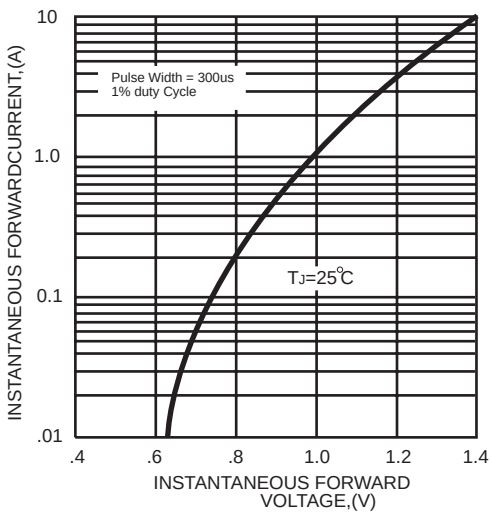
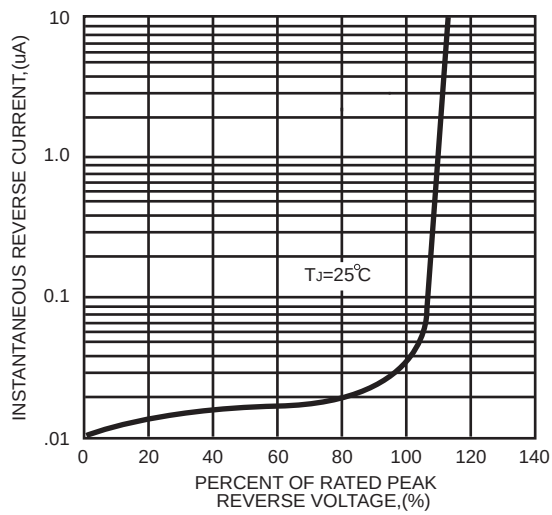


FIG. 4
TYPICAL REVERSE CHARACTERISTICS



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