

### SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts  
CURRENT 1.0 Amperes

#### FEATURES

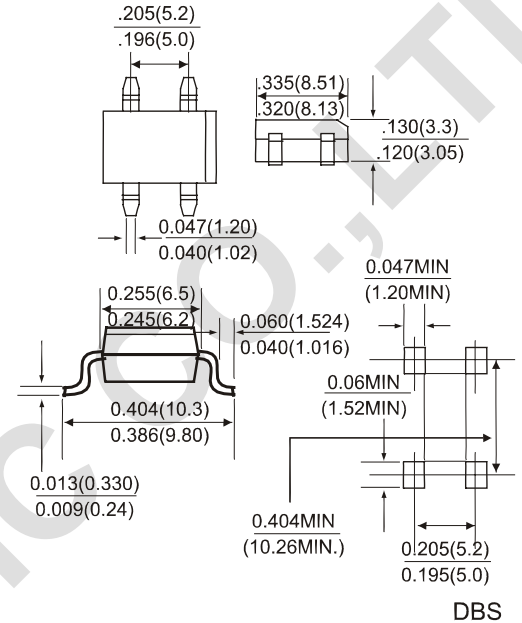
- Glass passivated chip junctions
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability.
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals.

#### MECHANICAL DATA

- **Case:** Transfer molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** Plated axial lead, solderable per MIL-STD-202E method 208C
- **Polarity:** Molded on body
- **Mounting position:** Any
- **Weight:** 0.04ounce, 1.0 gram

#### 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%



	SYMBOLS	DF005S DB101S	DF01S DB102S	DF02S DB103S	DF04S DB104S	DF06S DB105S	DF08S DB106S	DF10S DB107S	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS 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 Rectified Output Current 0.06" (1.5mm) lead length at $T_A=40^\circ\text{C}$ (NOTE2)	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage Drop per bridge element at 1.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	10							$\mu\text{Amps}$
	$T_A=125^\circ\text{C}$	0.5							mAmps
Typical Junction Capacitance(NOTE1)	$C_J$	25							pF
Typical Thermal Resistance(NOTE2)	$R_{QJA}$	40							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150							$^\circ\text{C}$

#### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on P.C.B. With 0.51" X 0.51" (13 X 13mm) copper pads.

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

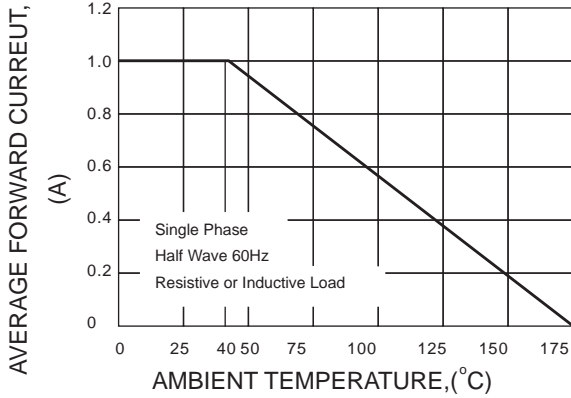


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

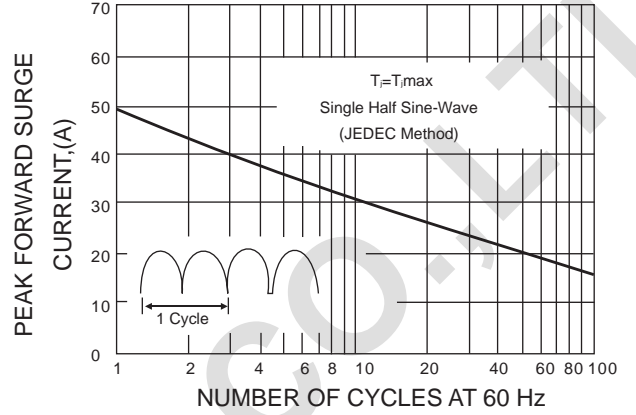


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

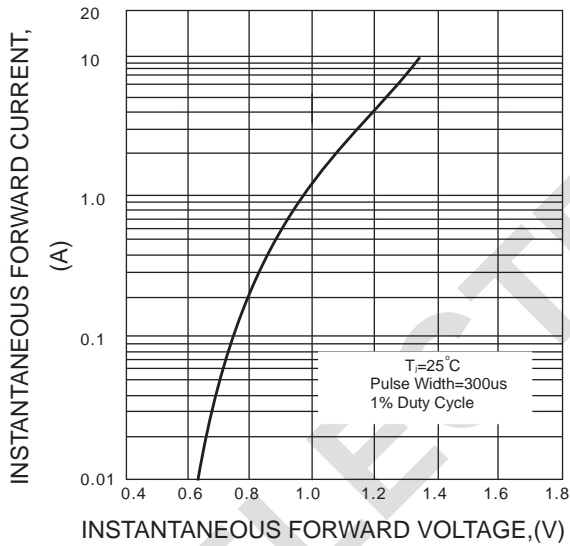


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

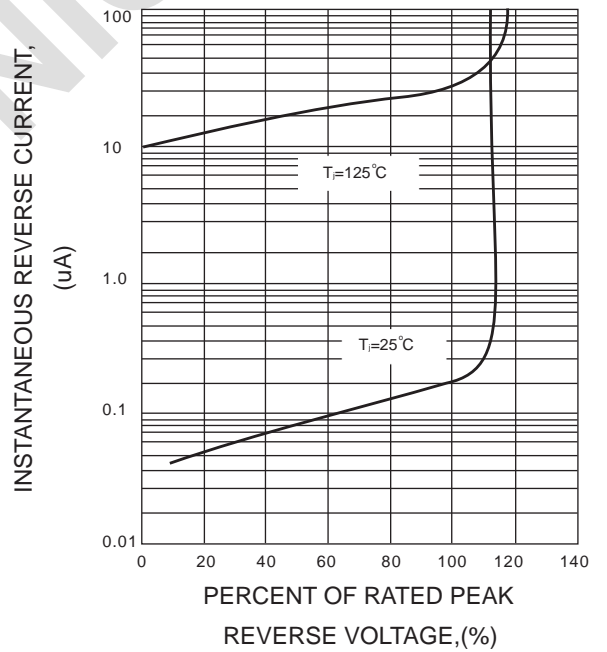


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

