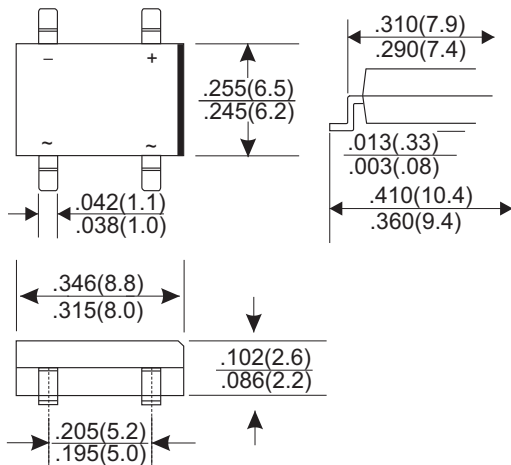# DB101S THRU DB107S

SINGLE PHASE BRIDGE RECTIFIERS
Reverse Voltage - 50 to 1000 Volts **Forward Current -** 1.0 Ampere

DB-1S

Dimensions in inches and (millimeters)

FEATURES

* Glass Passivated Die Construction
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=75°C				1.0				A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)				30				A
Maximum Instantaneous Forward Voltage at 1.0A				1.1				V
Maximum DC Reverse Current Ta=25°C				10				μA
at Rated DC Blocking Voltage Ta=100°C				500				μA
Typical Junction Capacitance (Note 1)				25				pF
Typical Thermal Resistance RθJA (Note 2)				40				°C/W
Operating and Storage Temperature Range TJ, TSTG				-65 — +150				°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Ambient mounted on PC board with 13mm^2 copper pad

RATING AND CHARACTERISTIC CURVES (DB101S THRU DB107)

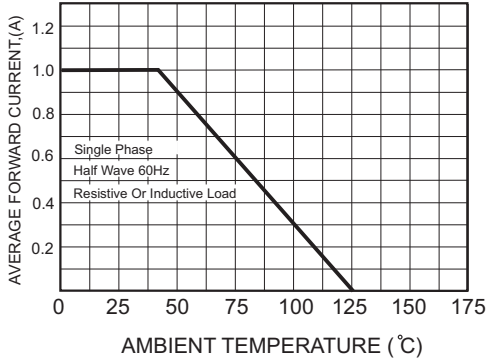FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

AVERAGE FORWARD CURRENT,(A)

Single Phase
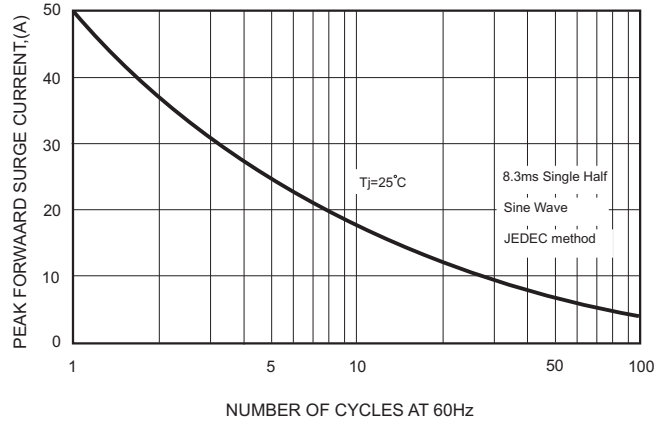Half Wave 60Hz
Resistive Or Inductive Load

AMBIENT TEMPERATURE (℃)

FIG.2-MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

PEAK FORWAARD SURGE CURRENT,(A)

Tj=25℃

8.3ms Single Half
Sine Wave
JEDEC method

NUMBER OF CYCLES AT 60Hz

FIG.3-TYPICAL FORWARD

CHARACTERISTICS
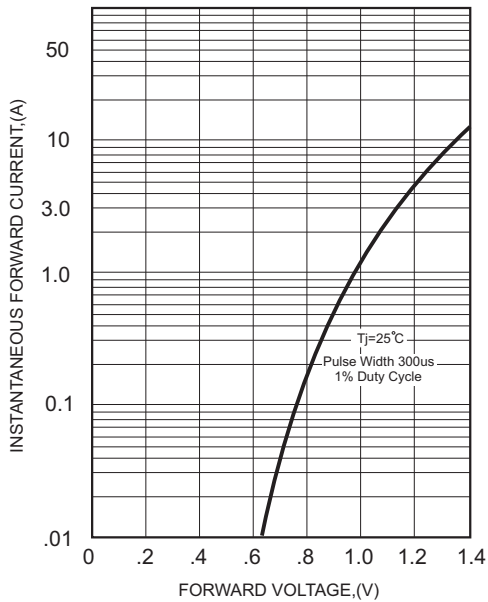
INSTANTANEOUS FORWARD CURRENT,(A)

Tj=25℃
Pulse Width 300us
1% Duty Cycle

FORWARD VOLTAGE,(V)

FIG.4-TYPICAL REVERSE

CHARACTERISTICS

REVERSE LEAKAGE CURRENT, (μA)

Tj=25℃

PERCENTAGE OF PEAK REVERSE VOLTAGE, (%)