

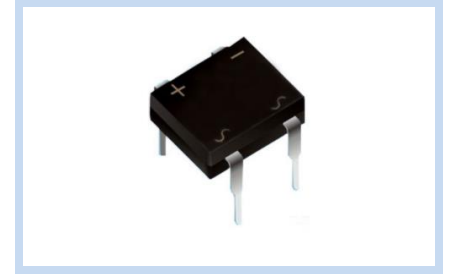
# Single-Phase Bridge Rectifier 1.0A DIP Package

DB10 Series

MERITEK

## FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 1.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 50A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS



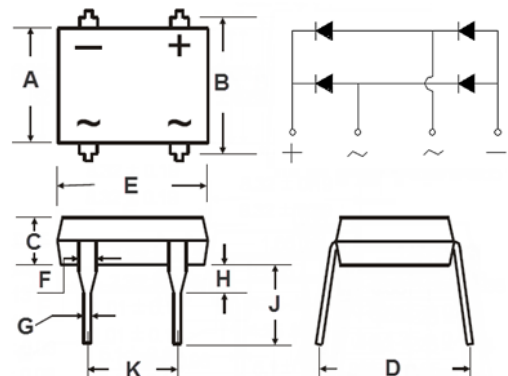
Parameter	Code	DB 101	DB 102	DB 103	DB 104	DB 105	DB 106	DB 107	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current	$I_{F(AV)}$	1.0, $T_A=40^\circ\text{C}$							A
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10							$\text{A}^2\text{sec}$
Maximum Instantaneous Forward Voltage Drop per Diode	$V_F$	1.1, $I_F=1.0\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	$I_R$	10, $T_A=25^\circ\text{C}$							$\mu\text{A}$
	$I_R$	500, $T_A=125^\circ\text{C}$							$\mu\text{A}$
Typical Junction Capacitance per Element	$C_j$	25.0							pF
Operating Junction and Storage Temperature	$T_J, T_{STG}$	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JA}$	110							$^\circ\text{C/W}$

### Note:

1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
2. Thermal resistance from Junction to Ambient on P.C. board mounting.
3. Measured at 2.0MHz and applied reverse voltage of 4.0 VDC.

## DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)	Item	Min. (mm)	Max. (mm)
A	6.20	6.50	F	0.88	1.14
B	7.24	8.00	G	0.46	0.58
C	2.20	2.50	H	1.27	2.03
D	7.60	8.90	J	3.81	4.69
E	8.13	8.51	K	5.00	5.20



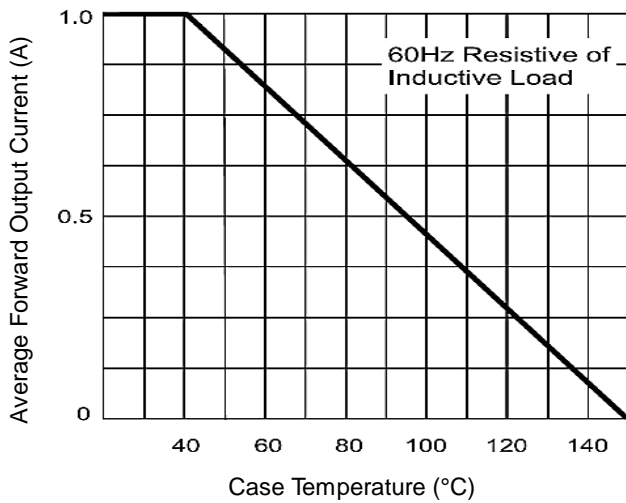
# Single-Phase Bridge Rectifier 1.0A DIP Package

DB10 Series

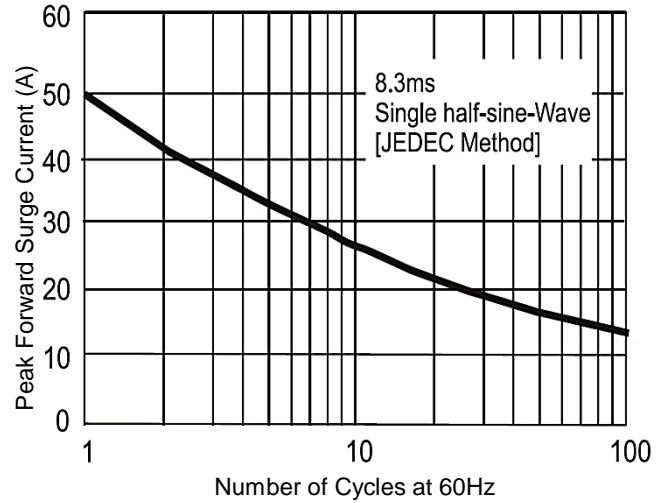
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## RATING AND CHARACTERISTIC CURVES

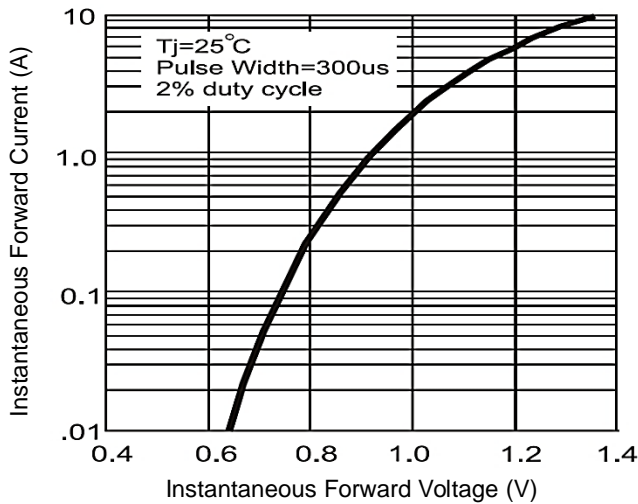
Derating Curve for Output Rectified Current



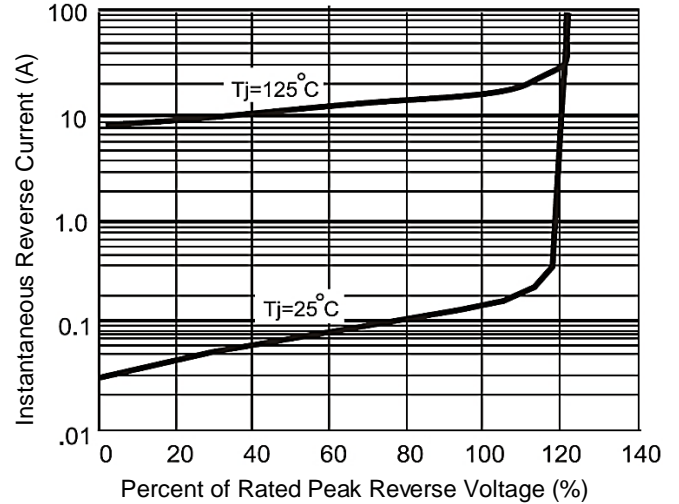
Maximum Non-Repetitive Peak Forward Surge Current



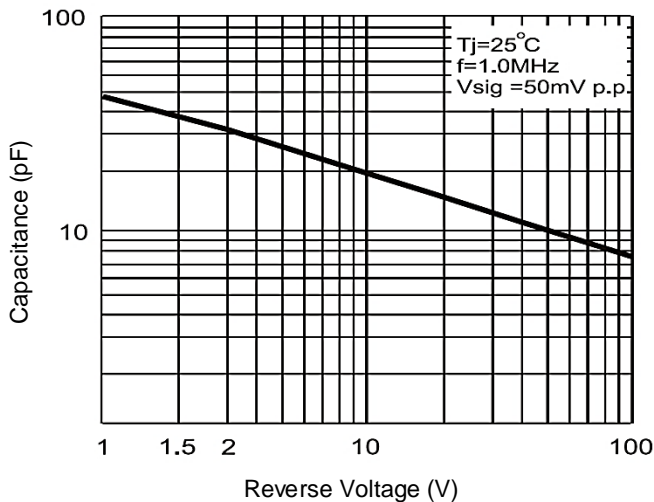
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



\*Specifications subject to change without notice.