ZV ELECTRONIC CORP.

KDB32 thru KDB325

3.0 A Single-Phase Glass Passivated Bridge Rectifiers

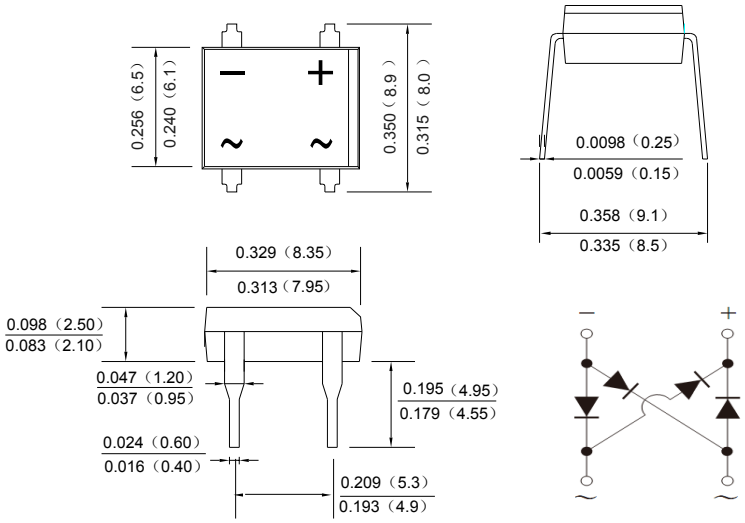
Rectifier Reverse Voltage 20 to 250V

SINGLE PHASE 3.0AMP SURFACE MOUNTSCHOTTKY BRIDGE RECTIFIER

Features

- High current capacity,low V_F
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0

DB-M



Dimensions in inches and (millimeters)

Mechanical Data

- Case: DB-M, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KDB 32	KDB 33	KDB 34	KDB 345	KDB 35	KDB 36	KDB 38	KDB 310	KDB 315	KDB 320	KDB 325	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	20	30	40	45	50	60	80	100	150	200	250	V
RMS Reverse Voltage	V_{RMS}	14	21	28	31	35	42	56	70	105	140	175	V
Average Rectified Output Current (Note 1)@T_C=100℃	IF(AV)	3.0											A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80											A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	26.56											A^2s
Forward Voltage per element @IF=3.0A	V_{FM}	0.55				0.7		0.85		0.9		0.92	V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=100℃	I_R	0.1 10						0.05 5					mA
Typical Junction Capacitance per leg (Note 2)	C_J	28											pF
Typical Thermal Resistance per leg	$R_{\theta JA}$ $R_{\theta JL}$	75 20											℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150											℃

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 solder pad.
2.Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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Fig. 1 Output Current Derating Curve

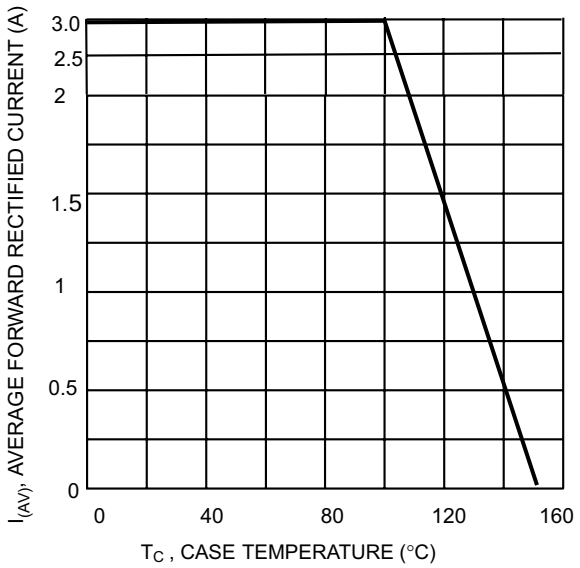

Fig. 2 Typical Forward Characteristics (per leg)

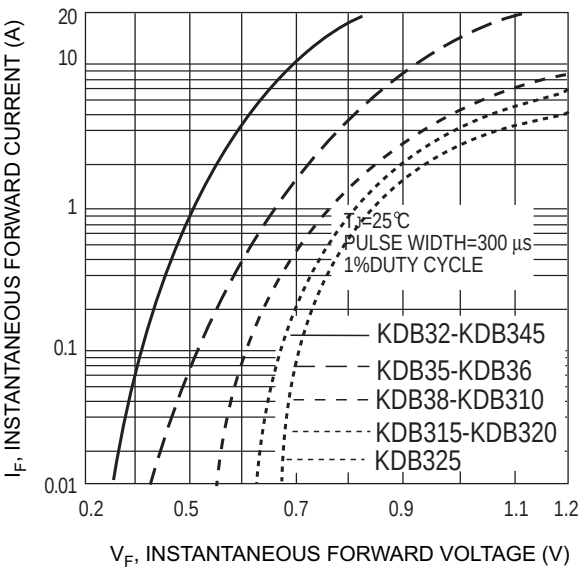

Fig. 3 Maximum Peak Forward Surge Current (per leg)

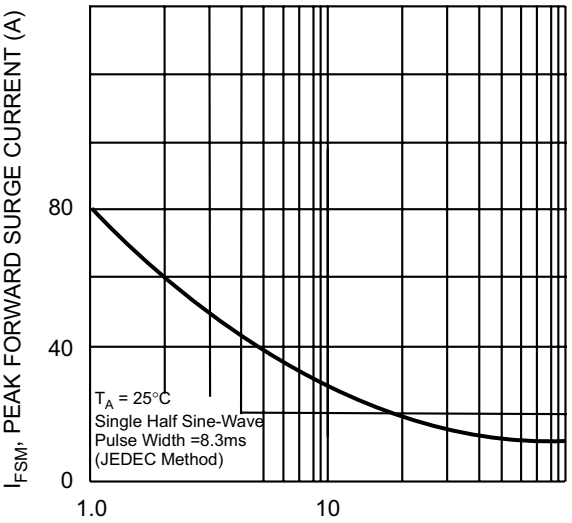

Fig. 4 Typical Reverse Characteristics (per element)