

4.0A Single-Phase Glass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 50V to 1000V

D3K

Features

- Glass passivated junction
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Surge overload ratings to 135 amperes peak
- Ideal for printed circuit board application
- Solder dip 275 °C max. 7 s, per JESD 22-B106

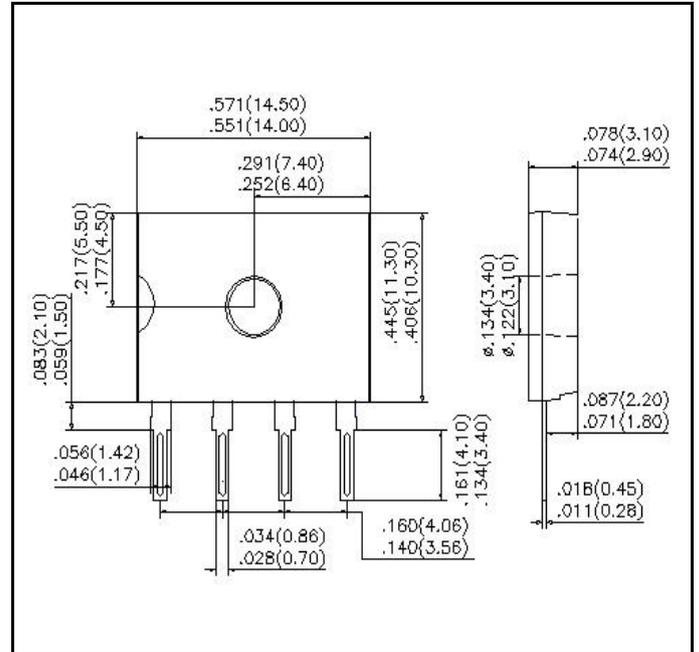
Mechanical Data

Case: Molded plastic

Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102

Polarity: Polarity symbols molded or Marked on body

Mounting Position: Any



Maximum Ratings & Thermal Characteristics

Dimensions in inches and (millimeters)

Rating at 25°C ambient temperature unless otherwise specified, Resistive or inductive load, 60HZ.

For Capacitive load derate current by 20%

Parameter	Symbol	D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =140°C	4.0							A
	Without heatsink Ta =29°C	1.3							
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	125							A
Rating for fusing (t<8.3ms)	I ² t	64.8							A ² sec
Maximum instantaneous forward voltage drop per leg at 2A	VF	1.00							V
Typical thermal resistance to ambient (without heatsink)	R _{θJA}	36							°C/w
Typical thermal resistance to case (with heatsink)(Note1)	R _{θJC}	1.5							°C/w
Typical thermal resistance to lead (without heatsink)	R _{θJL}	9							°C/w
Mounting torque (Suggests 045~0.65)	Tor	Rating Torque:0.8 (Suggests 045~0.65)							N.m
Maximum DC reverse current at rated @T _J =25°C	IR	5							μA
DC blocking voltage per element @T _J =125°C		500							
Operating junction temperature range	T _J	-55to+150							°C
Storage temperature range	TSTG	-55to+150							°C

Notes: (1) Device mounted on 50mm*50mm*1.6mm Cu plate heatsink.

(2) The typical data above is for reference only

Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

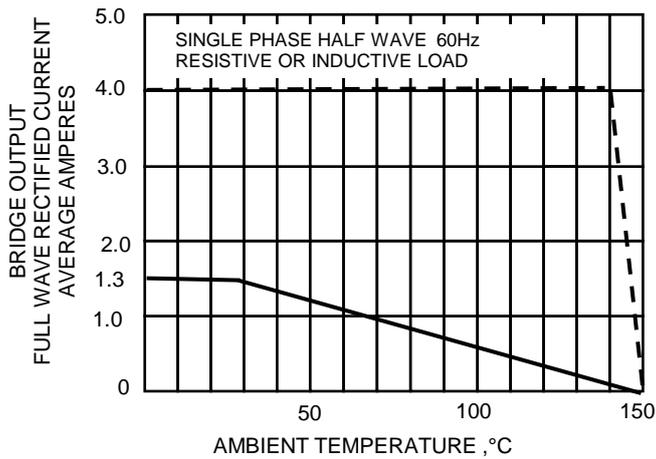


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

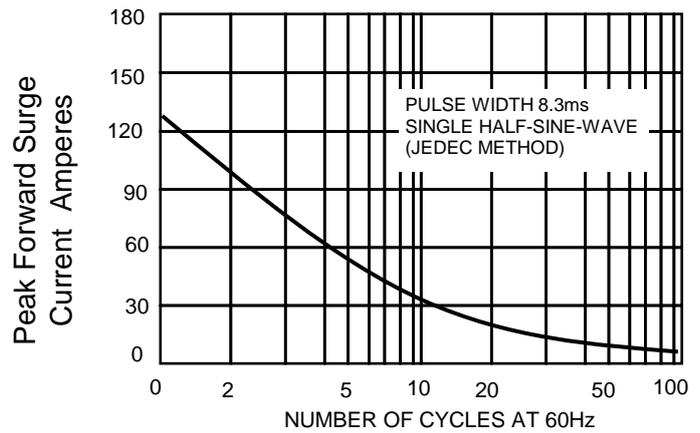


FIG.3-TYPICAL REVERSE CHARACTERISTICS

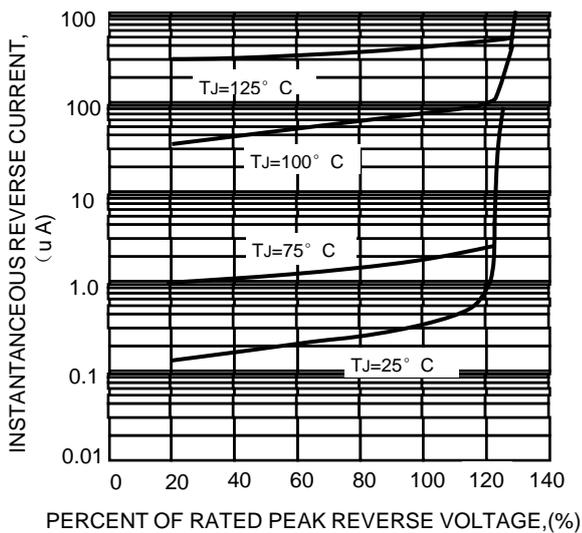


FIG.4-TYPICAL FORWARD CHARACTERISTICS

