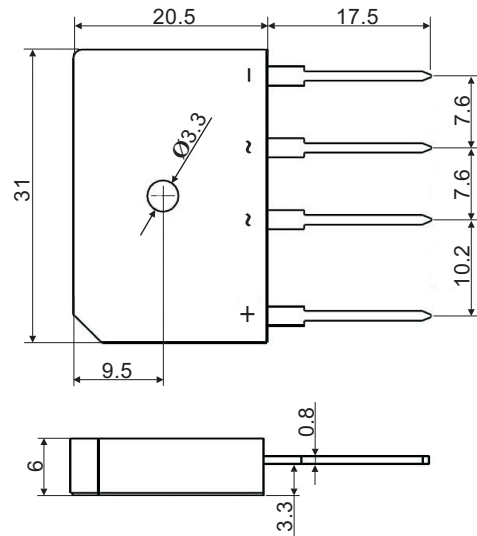
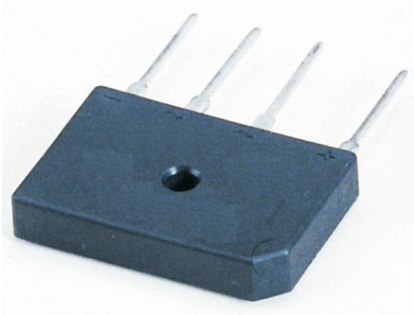




Single-Phase Bridge Rectifier, 50A

KBJ5004 Thru KBJ5012



All dimensions in millimeters

FEATURES

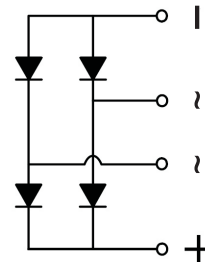
- UL recognition file number E320098 
- Typical IR less than 2.0 μA
- High surge current capability
- Low thermal resistance
- Compliant to RoHS 
- Isolation voltage up to 2500V

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for big power supply, field supply for DC motor, industrial automation applications.

ADVANTAGE

- International standard package
- Epoxy meets UL 94 V-O flammability rating
- Small volume, light weight
- Small thermal resistance
- High heat-conduction rate
- Low temperature rise
- **Weight:** 10g (0.35 ozs)



PRIMARY CHARACTERISTICS

$I_{F(AV)}$	50A
V_{RRM}	400V to 1200V
I_{FSM}	450A
I_R	5 μA
V_F	1.10V
$T_{Jmax.}$	150°C

Nell High Power Products

MAJOR RATINGS AND CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)							
PARAMETER	SYMBOL	KBJ50					UNIT
		04	06	08	10	12	
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	800	1000	1200	V
Peak reverse non-repetitive voltage	V_{RSM}	500	700	900	1100	1300	V
Maximum DC blocking voltage	V_{DC}	400	600	800	1000	1200	V
Maximum average forward rectified output current	$I_{F(AV)}$	50					A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	450					A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I^2t	1012					A ² s
RMS isolation voltage from case to leads	V_{ISO}	2500					V
Operating junction storage temperature range	T_J	-40 to 150					°C
Storage temperature range	T_{STG}	-40 to 125					°C

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	KBJ50					UNIT
			04	06	08	10	12	
Maximum instantaneous forward drop per diode	$I_F = 25\text{A}$	V_F	1.10					V
Maximum reverse DC current at rated DC blocking voltage per diode	$T_A = 25^\circ\text{C}$	I_R	5					μA
	$T_A = 150^\circ\text{C}$		500					

THERMAL AND MECHANICAL ($T_A = 25^\circ\text{C}$ unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	KBJ50					UNIT
			04	06	08	10	12	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	$R_{\theta JC}^{(1)}$	1.0					°C/W
Mounting torque to heatsink M3 $\pm 10\%$	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.		2.5					Nm
Approximate weight			10					g

Notes

- (1) With heatsink, single side heat dissipation, half sine wave.
 (2) M3 screw.

