

KBJ1506L

LOW VF BRIDGE RECTIFIERS



VOLTAGE **600 Volts** CURRENT **15 Amperes** Marking and circuit diagram

FEATURES

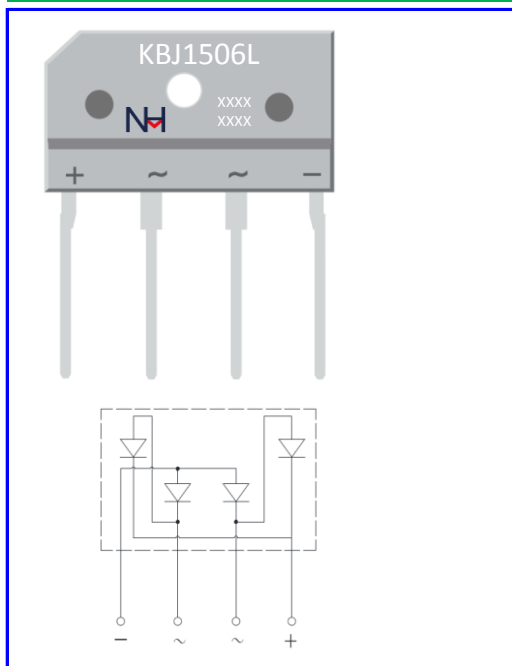
- Glass passivated die construction
- low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

MECHANICAL DATA

- Case: GBU , olded lastic
- 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

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C(UNLESS OTHERWISE NOTED))

Single phase,half wave,60Hz,resistive or inductive load.For capacitive load,derate current by 20%

Parameter	Symbol	KBJ1506L	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltag	V_{RMS}	420	V
Maximum DC blocking voltage	V_{RMS}	600	V
Average rectified output current @Tc=100°C (See Fig.1)(Note 1)	With heatsink	15	A
	Without heatsink	3.2	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	250	A
Current squared time@1ms≤t≤8.3ms, Rating of per diode	$I^2 t$	259.375	A ² S
Maximum instantaneous forward voltage at 7.5 A(Note 2)	V_F	1.05	V
Maximum instantaneous reverse current at rated DC blocking voltage	Tc=25°C	10	uA
	Tc=125°C	500	
Typical junction capacitance per element (Note 3)	C_J	65	pF
Operating junction and storage temperature range	T_J, T_{STD}	-55 to +150	°C

- Notes: 1. Device mounted on 300x300x1.6mm cu plate heatsink.
 2.Pulse test: 300 μs pulse width,1% duty cycle
 3.Measured at 1 MHZ and applied reverse voltage of 4.0 VDC.

KBJ1506L
LOW VF BRIDGE RECTIFIERS



RATING AND CHARACTERISTIC CURVES

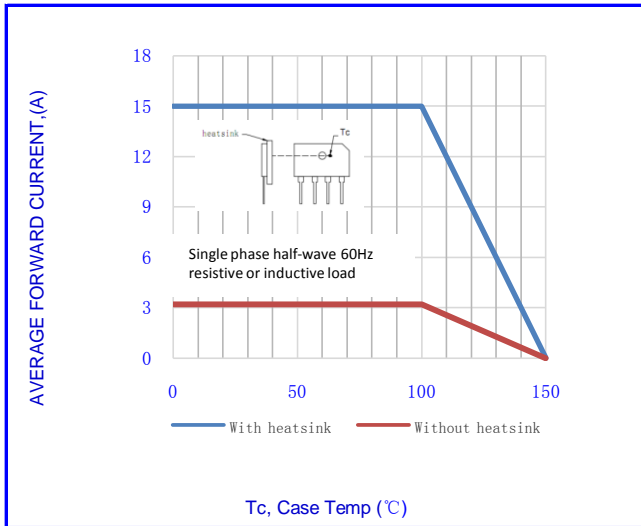


Fig.1- FORWARD CURRENT DERATING CURVE

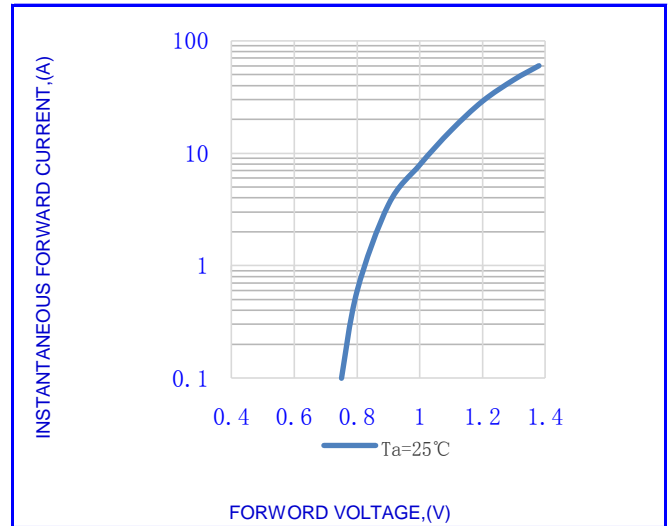


Fig.2-TYPICAL INSTANTANEOUS FORWARD

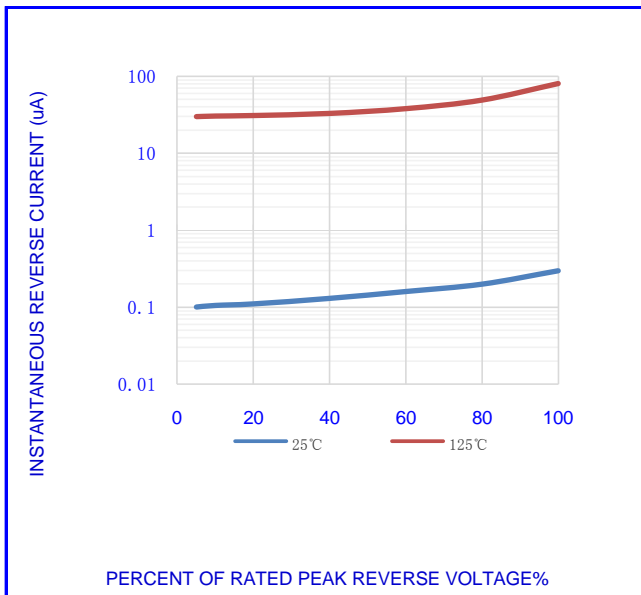


Fig.3- TYPICAL REVERSE CHARACTERISTICS

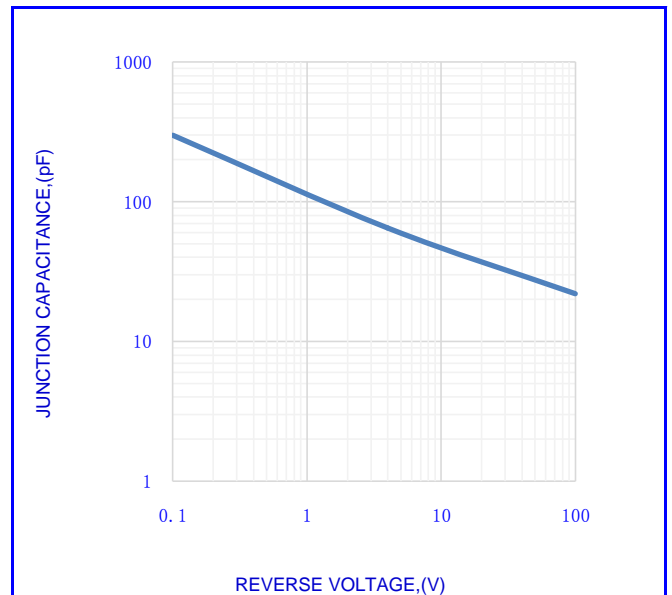


Fig.4-TYPICAL JUNCTION CAPACITANCE

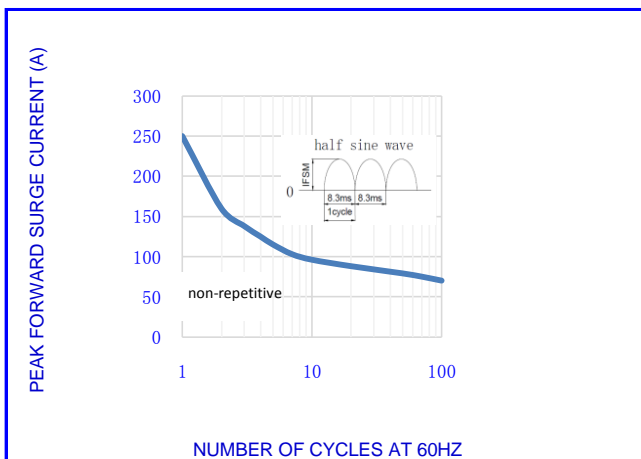


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

KBJ1506L



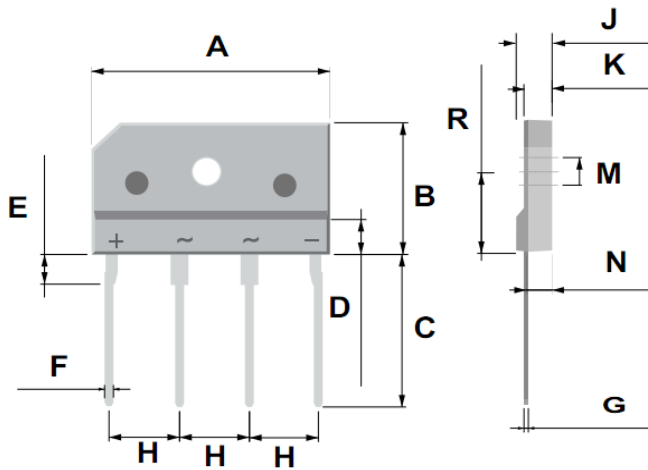
LOW VF BRIDGE RECTIFIERS

Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	KBJ	Unit
Typical thermal resistance (Note 4)	$R_{\theta JA}$	25.0	°C/W
	$R_{\theta JC}$	2.30	

Note: 4. Device mounted on 300x300x1.6mm cu plate heatsink.

OUTLINE DRAWINGS



DIM	OUTLINE DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	24.7	-	25.3	0.972	-	0.996
B	14.7	-	15.3	0.579	-	0.602
C	17.0	-	18.0	0.669	-	0.709
D	3.8	-	4.2	0.150	-	0.165
E	3.3	-	3.7	0.130	-	0.146
F	0.9	-	1.1	0.035	-	0.043
G	0.6	-	0.8	0.024	-	0.031
H	7.3	-	7.7	0.287	-	0.303
J	4.4	-	4.8	0.173	-	0.189
K	3.4	-	3.8	0.134	-	0.150
M	3.1	-	3.4	0.122	-	0.134
N	3.2	-	3.4	0.126	-	0.134
R	9.5	-	10.1	0.374	-	0.400

Maximum instantaneous reverse current at rated DC

Product code	Pack	Quantity (pcs/box)	Box Size LxWxH (mm)	Carton Size LxWxH (mm)	Quantity (box/carton)
KBJ1506L	B/P	250	230x45x120	360x240x190	12