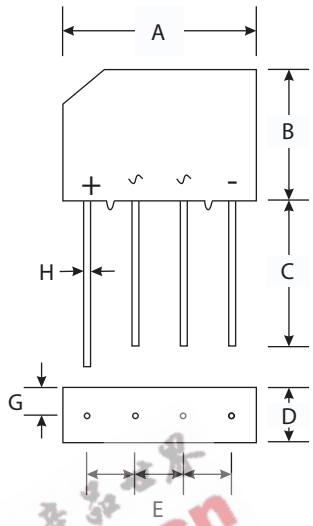
DEC

KBP005 THRU KBP10

CURRENT 2.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 1500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 40A Peak
- Ideal for Printed Circuit Board Applications
- Plastic Material - UL Flammability Classification 94V-0



KBP		
Dim	Min	Max
A	14.00	15.00
B	10.50	11.50
C	15.00	—
D	4.70	5.00
E	3.50	4.00
G	2.30	2.50
H	0.70 Typical	
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads, Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Approx. Weight: 1.52 grams
- Mounting Position: Any
- Marking: Type Number

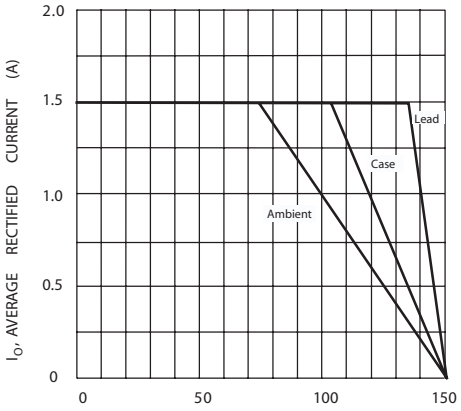
Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

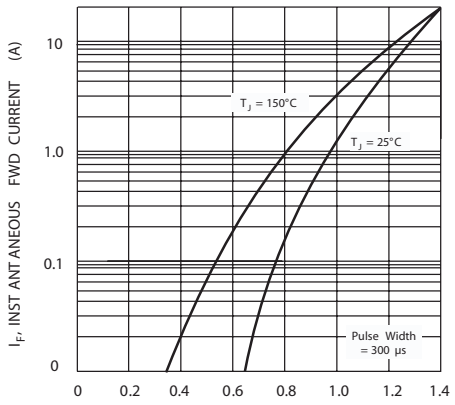
	Symbols	KBP 005	KBP 01	KBP 02	KBP 04	KBP 06	KBP 08	KBP 10	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RMM} V_{RWM} V_R	50	100	200	400	600	800	1000	Volts
RMS Reverse voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	Volts
Average Rectified Output Current @ T_C=105℃	Io	2.0							Amps
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load per element (JEDEC method)	I_{FSM}	40							Amps
Forward Voltage (per element) @ I_F=2.0 A	V_{FM}	1.1							Volts
Peak Reverse Current at Rated DC Blocking Voltage @ T_C=25℃	I_{RM}	5.0							μA
Peak Reverse Current at Rated DC Blocking Voltage @ T_C=125℃	I_{RM}	500							μA
Typical Junction Capacitance (Note 1)	C_j	20							pF
Typical Thermal Resistance, Junction to Case (Note 2)	$R\theta_{JC}$	30							℃/W
Operating and Storage Temperature Range	T_j T_{STG}	-65 to +150							℃

Notes:
(1) Thermal resistance from junction to case per element. Unit mounted on 300 x 300 x 16mm aluminum plate heat sink.
(2) Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.

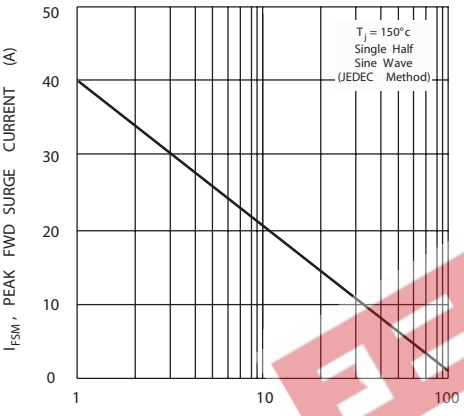
RATING AND CHARACTERISTIC CURVES KBP005 THRU KBP10



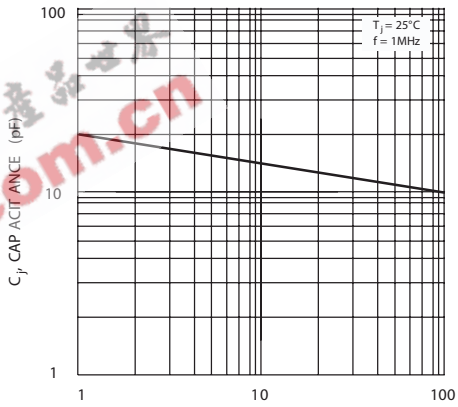
T, TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



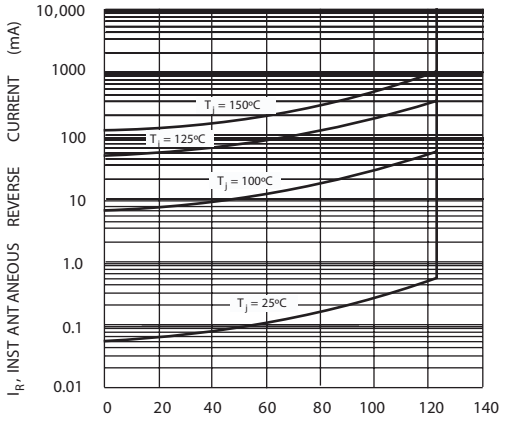
V_F, INSTANTANEOUS FWD VOLTAGE (V)
Fig. 2 Typical Fwd Characteristics



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



V_R, REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 5 Typical Reverse Characteristics