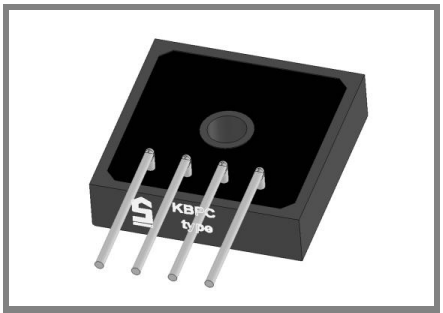
KBPC 2500I ... KBPC 2510 ...



Square bridge

Silicon-Bridge Rectifiers

KBPC 2500I ... KBPC 2510I

Forward Current: 25 A

Reverse Voltage: 50 to 1000 V

Publish Data

Features

- max. solder temperature 260°C, max. 5s
- UL recognized, file no.E63532
- Standard packaging: bulk
- V_{ISO} > 2500 V

Mechanical Data

- Plastic case with alu-bottom 28,6 * 28,6 * 7,3 [mm]
- Weight approx. 18 g
- Terminals: plated terminals solderable per IEC 68-2-20
- Mounting position: any
- Admissible torque for mounting (M 5): 2 (± 10 %) Nm

Type	Alternating input voltage V_{RMS} V	Repetetive peak reverse voltage V_{RRM} V
KBPC 2500I	35	50
KBPC 2501I	70	100
KBPC 2502I	140	200
KBPC 2504I	280	400
KBPC 2506I	420	600
KBPC 2508I	560	800
KBPC 2510I	700	1000

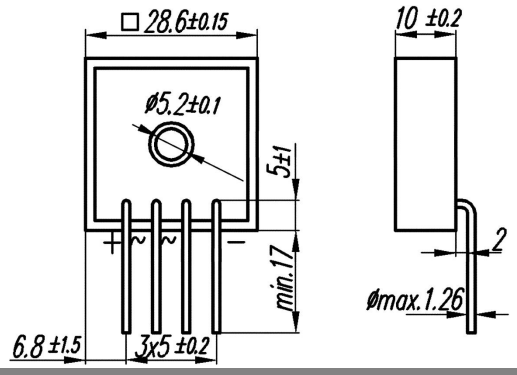
Absolute Maximum Ratings T_c = 25 °C unless otherwise specified

Symbol	Conditions	Values	Units
I_{FRM}	Repetitive peak forward current; f > 15 Hz [1)]	60	A
I^2t	Rating for fusing, t < 10 ms	375	A^2s
I_{FSM}	Peak forward surge current, 50 Hz half sine-wave T_A = 25 °C	300	A
I_{FAV}	Max. averaged fwd. current, R-load, T_A = 50 °C [1)]	not applicable	A
I_{FAV}	Max. averaged fwd. current, C-load, T_A = 50 °C [1)]	not applicable	A
I_{FAV}	Max. current with cooling fin, R-load, T_C = 100 °C [2)]	25	A
I_{FAV}	Max. current with cooling fin, C-load, T_C = 100 °C [2)]	20	A
R_{thA}	Thermal resistance junction to ambient [1)]		K/W
R_{thC}	Thermal resistance junction to case [1)]	2	K/W
T_j	Operating junction temperature	- 50 ... + 150	°C
T_s	Storage temperature	- 50 ... + 150	°C

Characteristics T_c = 25 °C unless otherwise specified

Symbol	Conditions	Values	Units
V_F	Maximum forward. voltage, T_j = 25 °C; I_F = 12,5 A	1,2	V
I_R	Maximum Leakage current, T_j = 25 °C; V_R = V_{RRM}	25	µA
C_J	Typical junction capacitance per leg at V, MHz		pF

Dimensions in mm



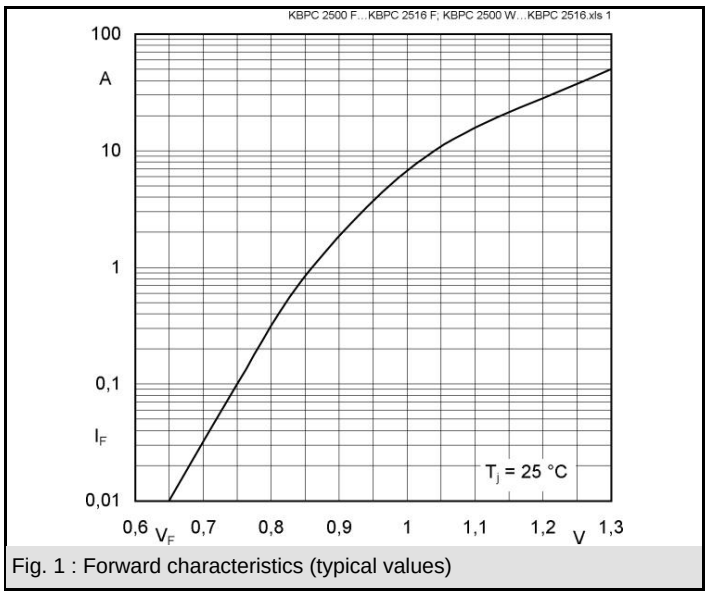


Fig. 1 : Forward characteristics (typical values)

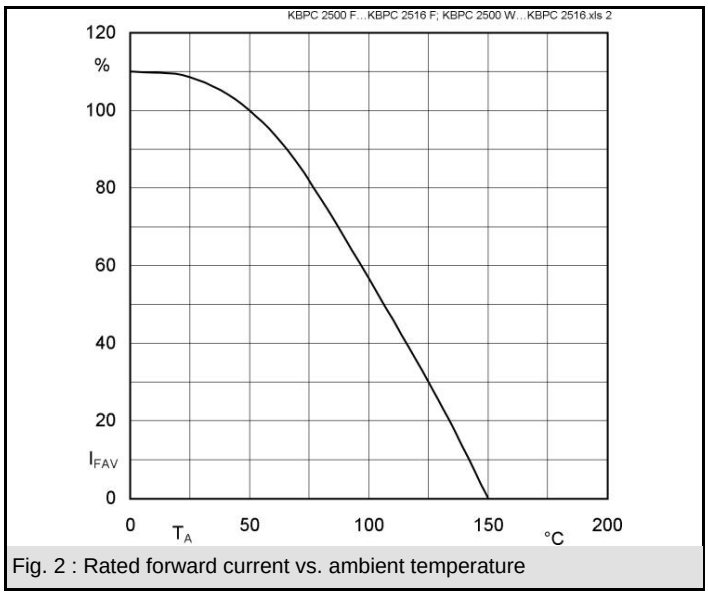


Fig. 2 : Rated forward current vs. ambient temperature

