

SILICON BRIDGE RECTIFIERS

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds, 5 lbs. (2.3kg) tension

Mechanical Data

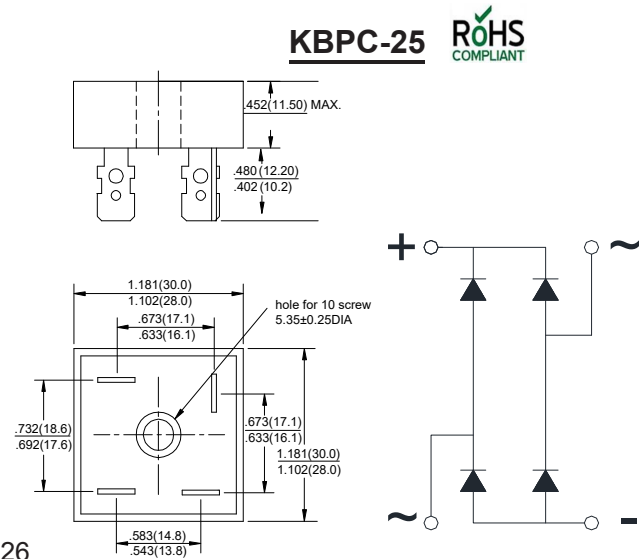
Case : JEDEC KBPC-25 Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 1.02 ounce, 29 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	MDD KBPC35005	MDD KBPC3501	MDD KBPC3502	MDD KBPC3504	MDD KBPC3506	MDD KBPC3508	MDD KBPC3510	MDD KBPC3512	UNITS
Marking Code										
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	V
Maximum RMS voltage	V_{RMS}	30	70	140	280	420	560	700	840	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1200	V
Maximum average forward output rectified current at $T_c=55^\circ\text{C}$ (Note 1)	$I_{(AV)}$	35.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	400								A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	664								A ² s
Maximum instantaneous forward voltage drop per bridge element at 17.5A	V_F	1.1								V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	10								μA
		1.0								mA
Dielectric Strength, Terminals to case, AC 1 minute	V_{dis}	2500								V
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.6								$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150								$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +150								$^\circ\text{C}$

NOTES:

- Unit mounted on 9" x 3.5" x 4.6" thick (23cm x 9cm x 11.8cm) Al. plate.
- Between junction and case, With heatsink

Ratings And Characteristic Curves

FIG1:Io-Tc Curve

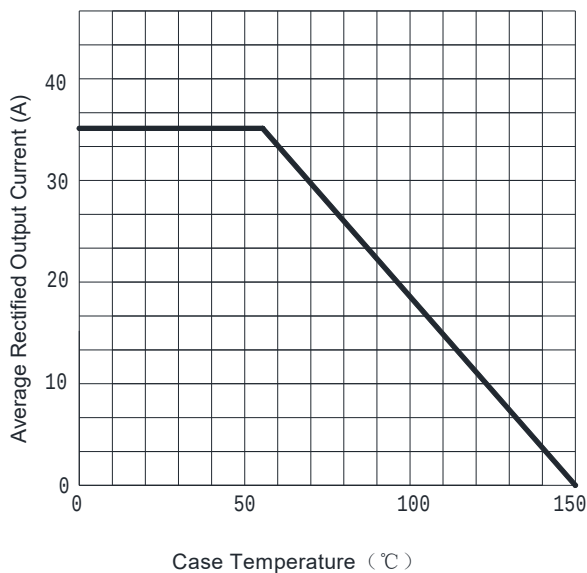


FIG2:Surge Forward Current Capability

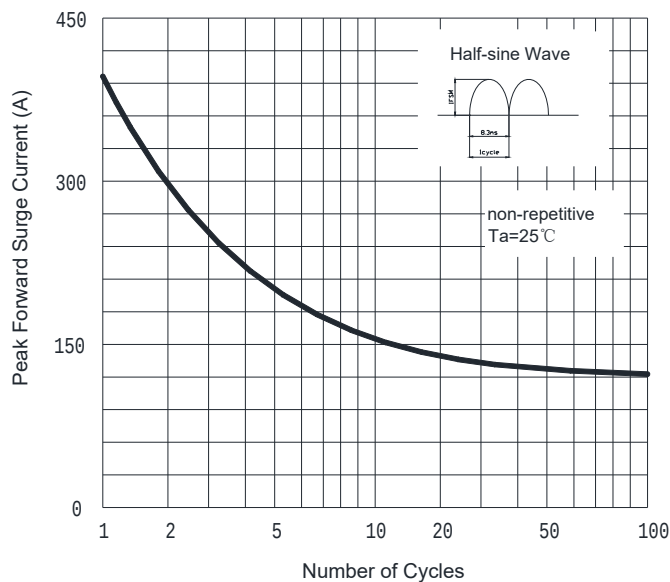


FIG3:Instantaneous Forward Voltage

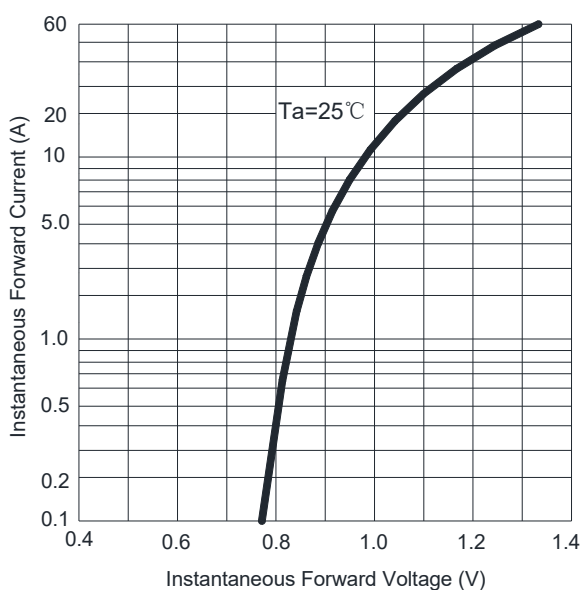
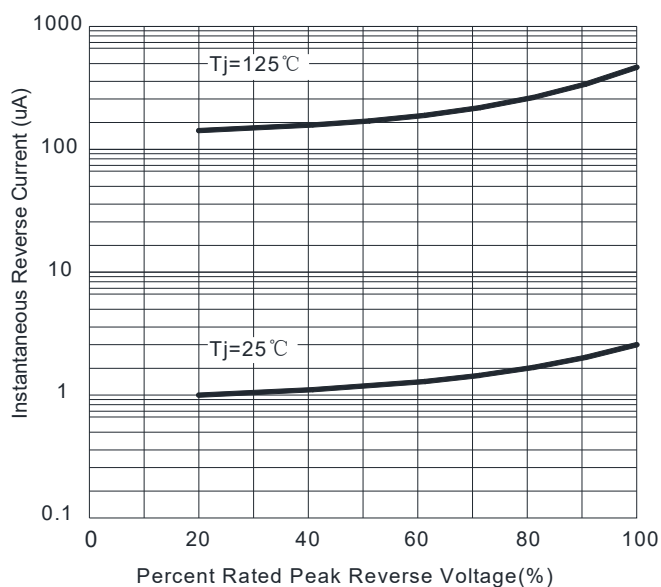


FIG4:Typical Reverse Characteristics



The curve above is for reference only.