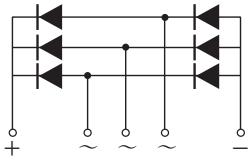
SKBPC5016

18-Nov-2023

Three-phase Bridge Rectifiers

SKBPC



Features

- I_O : 50A
- V_{RRM} : 1600V
- Glass passivated chip
- High surge forward current capability

Applications

- General purpose 3 phase Bridge rectifier applications

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	SKBPC5016	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	V
Maximum RMS voltage	V_{RMS}	1120	V
Maximum DC Blocking Voltage	V_{DC}	1600	V
Average Rectified Output Current	I_O	50.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load	I_{FSM}	500	A
I^2t rating for fusing (1ms< t < 8.3ms)	I^2t	1037	A^2S
Maximum Forward Voltage Drop Per Element at 25A Peak	VF	1.1	V
Maximum Reverse Current at Rate DC Blocking Voltage Per Element @TJ=25 °C	IR	10	uA
Operating and Storage Temperature Range	Tj,Tstg	-55 ~ +150	°C
Junction-to-case thermal resistance	RthJC	0.5	°C/W

RATINGS AND CHARACTERISTICS CURVES (TA = 25 ˚C unless otherwise noted)

FIG.1-MAXIMUM FORWARD SURGE CURRENT

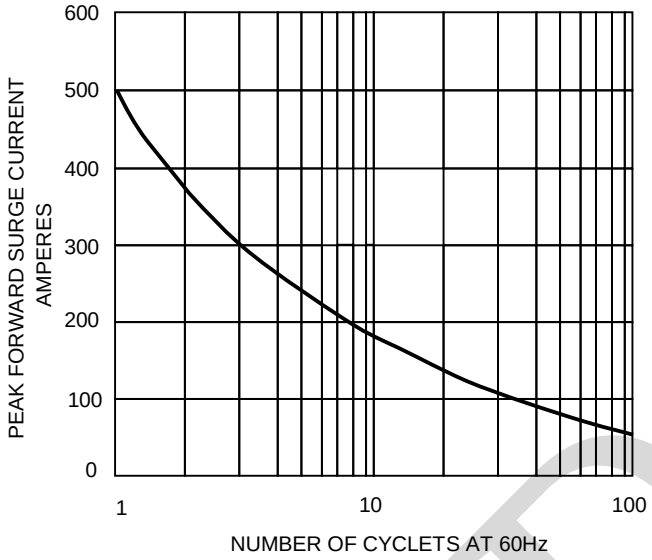


FIG.2- DERATING CURVE
OUTPUT RECTIFIED CURRENT

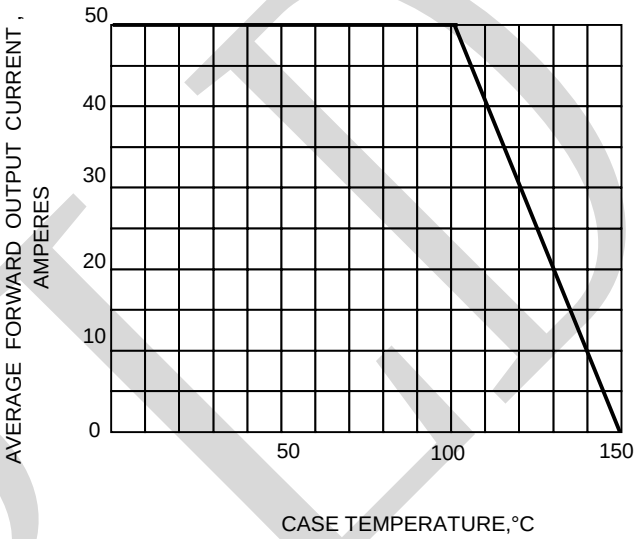


FIG.3-TYPICAL FORWARD
CHARACTERISTICS

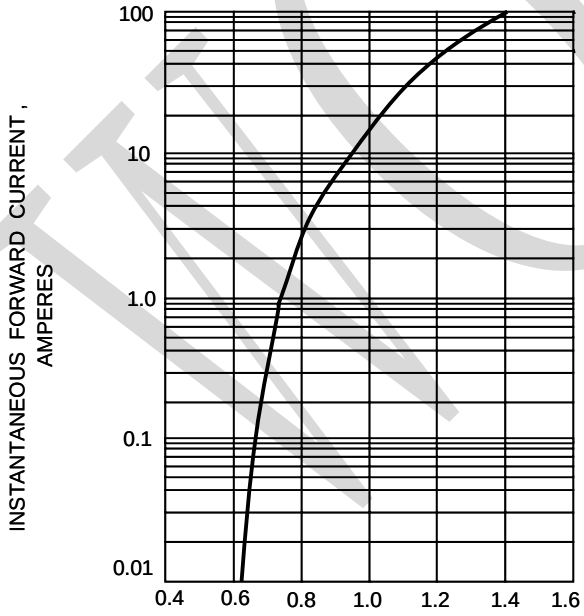
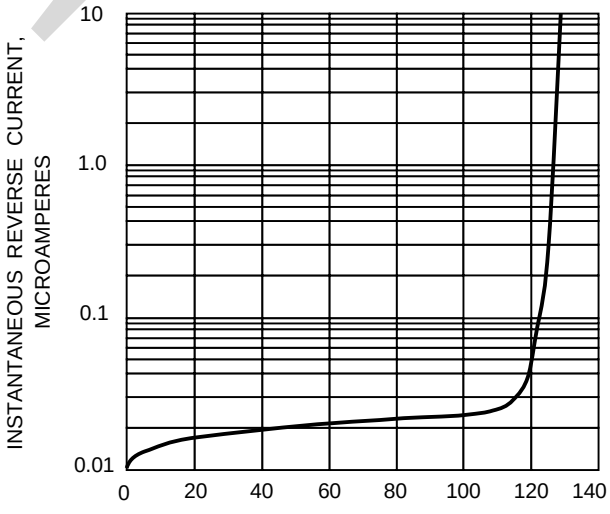


FIG.4-TYPICAL REVERSE
CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

Note:unit mm

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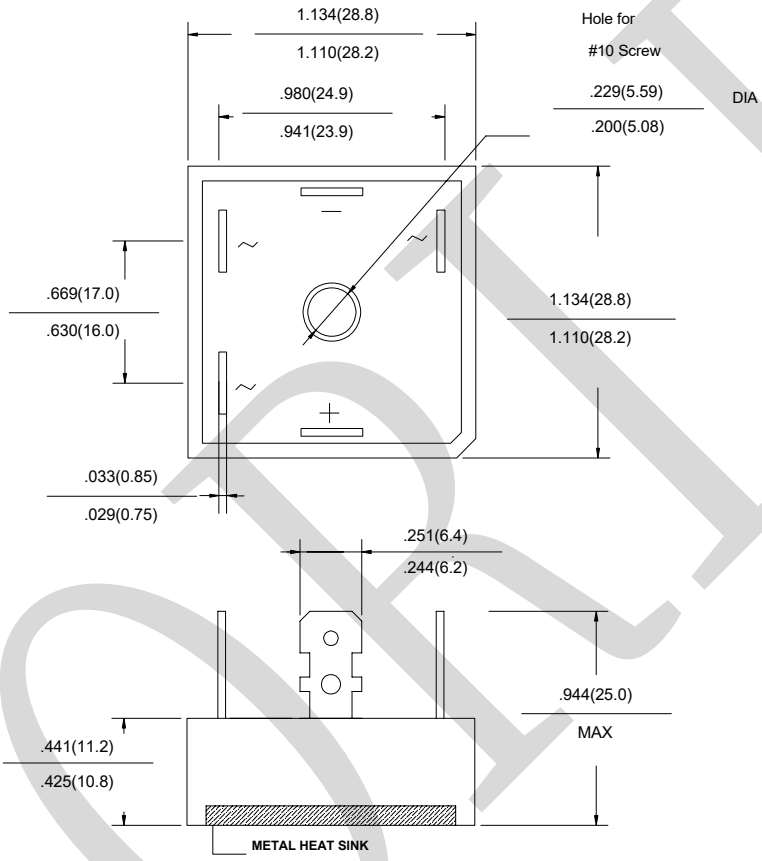

Dimensions for inches and (millimeters)

Description of model and identification

SKBPC 50 16

Package type

Current

50=50A

Voltage

16=1600V