



THREE-PHASE BRIDGE RECTIFIER

SKBPC5004 - SKBPC5016

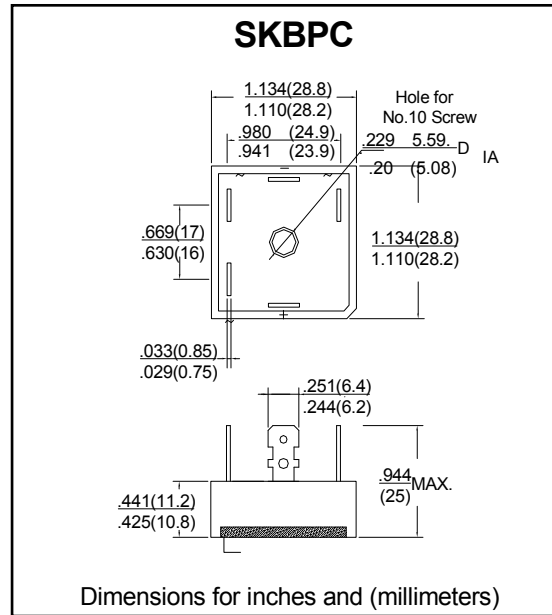
FEATURES

- I_o 50A
- V_{RRM} 400V~1600V
- Glass passivated chip
- High surge forward current capability

APPLICATIONS

- General purpose 3 phase Bridge rectifier applications

Outline Dimensions and Mark



LIMITING VALUES (ABSOLUTE MAXIMUM RATING)

Item	Symbol	Unit	Conditions	SKBPC50						
				04	06	08	10	12	14	16
Repetitive Peak Reverse Voltage	V_{RRM}	V		400	600	800	1000	1200	1400	1600
Average Rectified Output Current	I_o	A	60Hz sine wave, R-load, with heatsink $T_a=55^\circ\text{C}$	50						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, $T_j=25^\circ\text{C}$	500						
Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	1040						
Storage Temperature	T_{stg}	$^\circ\text{C}$		-40 ~ +150						
Junction Temperature	T_j	$^\circ\text{C}$		-40 ~ +150						
Dielectric Strength	V_{dis}	KV	Terminals to case, AC 1 minute	2.5						

($T_a=25^\circ\text{C}$) Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM}=17\text{A}$, Pulse measurement, Rating of per diode	1.2
Peak Reverse Current	I_{RRM}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	10
Thermal Resistance	$R_{\theta J-C}$	$^\circ\text{C}/\text{W}$	Between junction and case with heatsink	0.9

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CHARACTERISTICS(TYPICAL)

FIG1:Io-Tc Curve

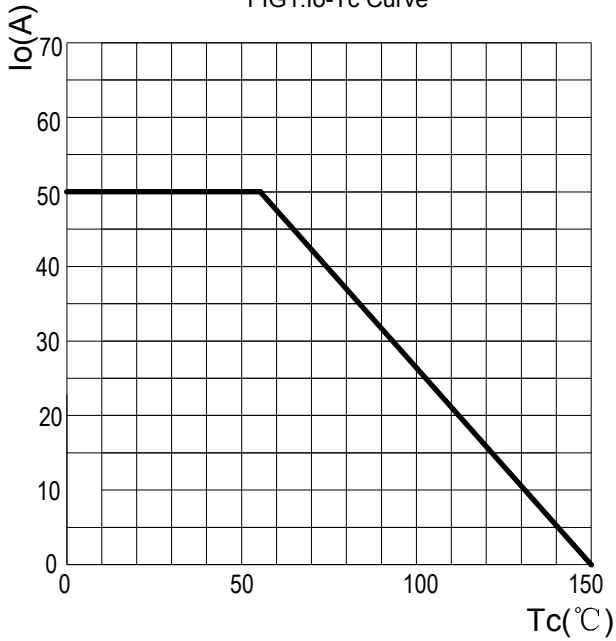


FIG2:Surge Forward Current Capability

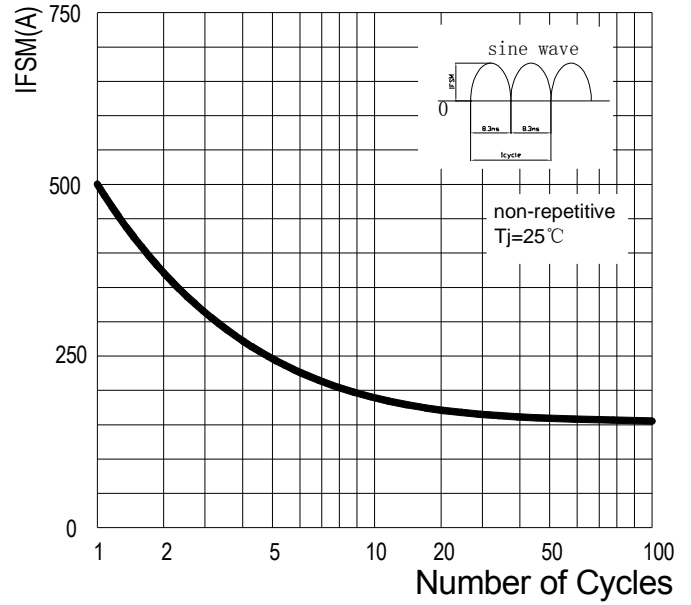


FIG3:Instantaneous Forward Voltage

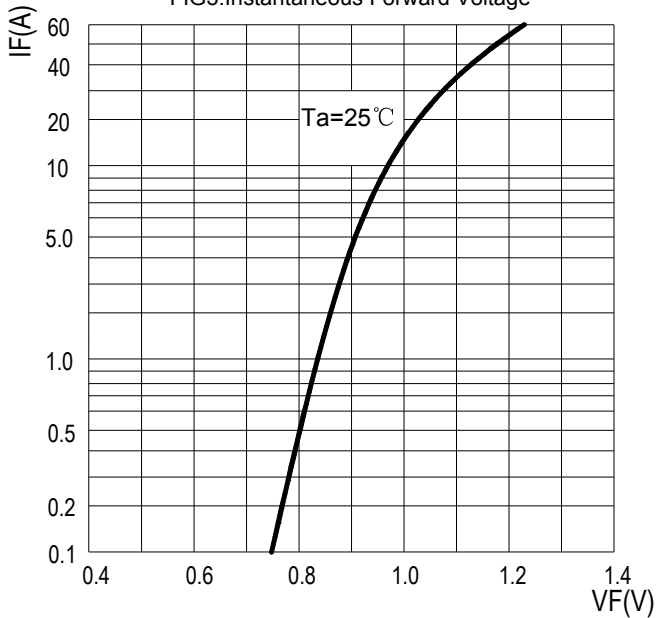


FIG4:Typical Reverse Characteristics

