SiPower

Power Semiconductor Technology

T3KB (20~80)
Bridge Rectifier

■ Features

- I_o 3.0A
- V_{RRM} 200V~800V
- Glass passivated chip
- High surge forward current capability
- Small size

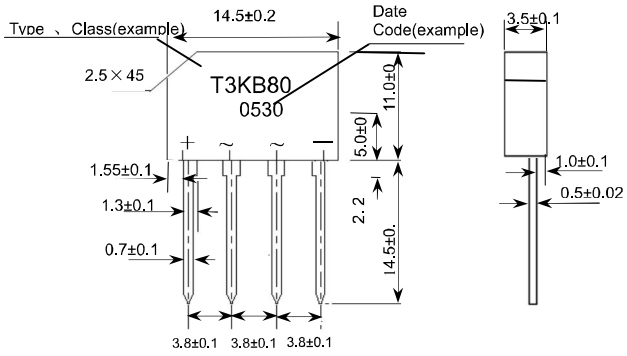
■ Applications

- General purpose 1 phase Bridge rectifier applications

Outline Dimensions and Mark

2K

Unit：mm



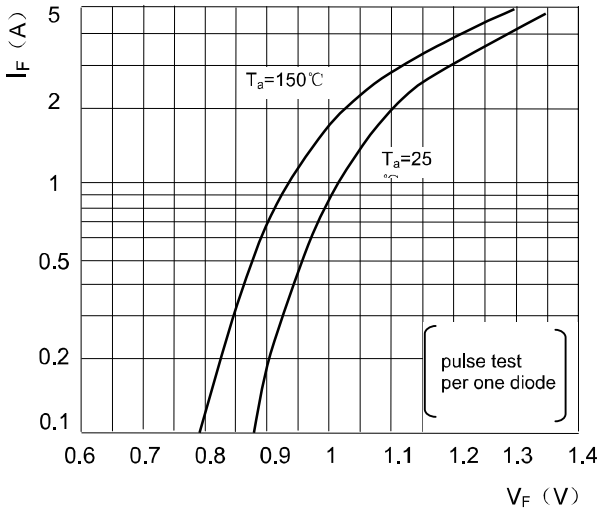
■ Limiting Values（Absolute Maximum Rating）

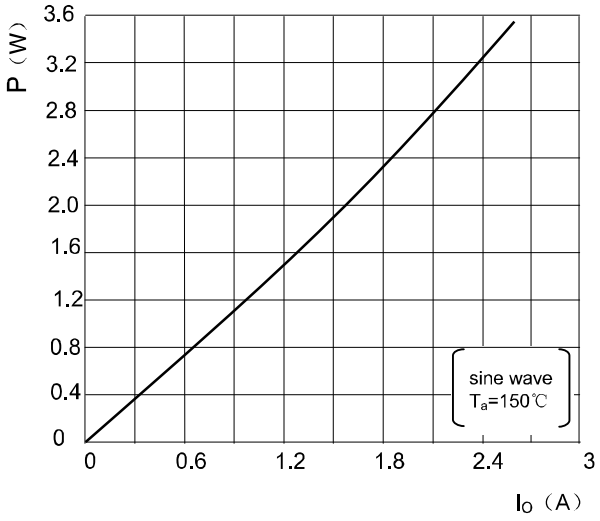
Item	Symbol	Unit	Conditions	T3KB			
				20	40	60	80
Storage Temperature	T_{stg}	℃		-40 ~ +150			
Junction Temperature	T_j	℃		+150			
Repetitive Peak Reverse Voltage	V_{RRM}	V		200	400	600	800
Average Rectified Output Current	I_o	A	50Hz sine wave, R-load, without heatsink T_a=25℃	2.0			
			50Hz sine wave, R-load, with heatsink Tc=140℃	3.0			
Surge(Non-repetitive)Forward Current	I_{FSM}	A	50Hz sine wave, 1 cycle, T_a=25℃	90			
Current Squared Time	I^2t	A^2s	1ms≤t<8.3ms Tj=25℃,Rating of per diode	34			

■ Electrical Characteristics（T_a=25℃ Unless otherwise specified）

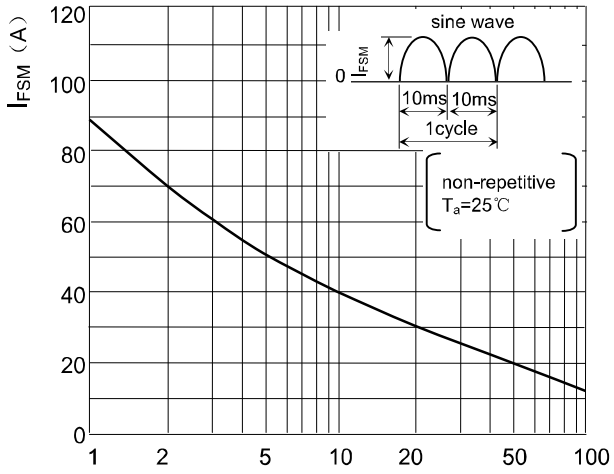
Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=1.5A, Pulse measurement, Rating of per diode	1.05
Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM} , Pulse measurement, Rating of per diode	10
Thermal Resistance	$R_{\theta J-c}$	℃/W	Between junction and case，with heatsink	1.5
	$R_{\theta J-A}$		Between junction and ambient，without heatsink	45
	$R_{\theta J-L}$		Between junction and lead,without heatsink	8

■ Characteristics(Typical)



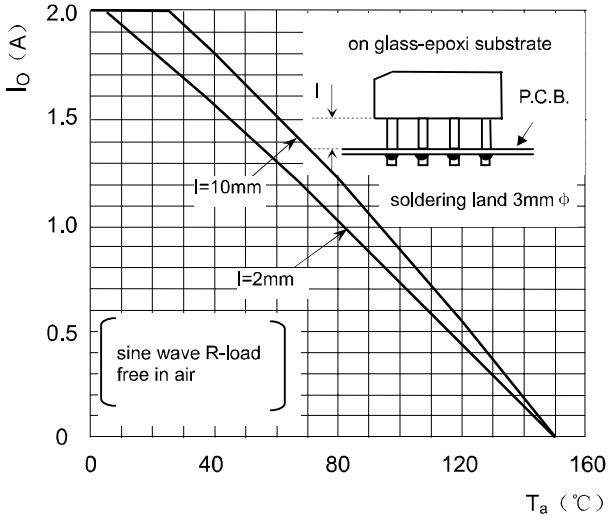


Forward Characteristics

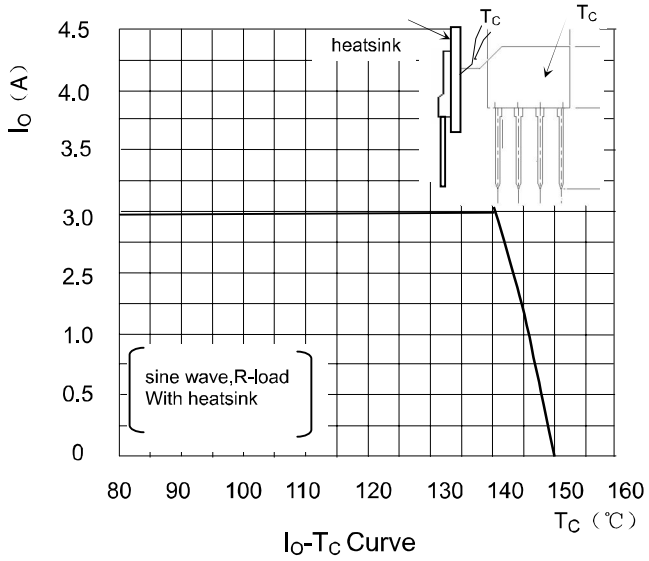


Surge Forward Current Capability

P-I_O Curve



I_O-T_a Curve



I_O-T_C Curve