SiPower

Power Semiconductor Technology

T6KB (20~80)
Bridge Rectifier

■ Features

- I_o 6.0A
- V_{RRM} 200V~800V
- Glass passivated chip
- High surge forward current capability

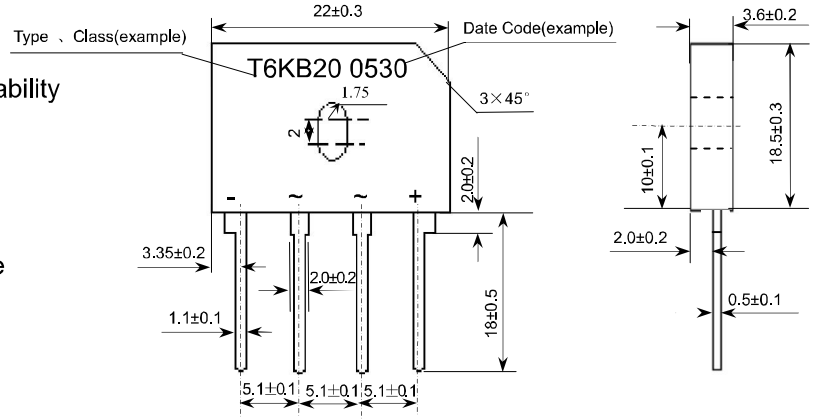
■ Applications

- General purpose 1 phase Bridge rectifier applications

Outline Dimensions and Mark

Unit：mm

4K



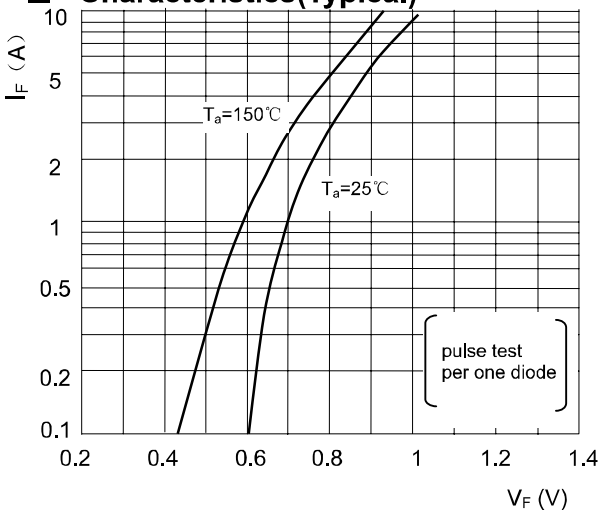
■ Limiting Values（Absolute Maximum Rating）

Item	Symbol	Unit	Conditions		T6KB 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,	With Heatsink T =110℃	6.0			
				Without Heatsink T_a=25℃	2.8			
Surge(Non-repetitive)Forward Current	I_{FSM}	A	50Hz sine wave, 1 cycle, T_a=25℃		175			
Current Squared Time	I^2t	A^2s	1ms≤t<8.3ms Tj=25℃,Rating of per diode		127			
Dielectric Strength	Vdis	kV	Terminals to case，AC 1 minute		2			
Mounting Torque	TOR	kg • cm	Recommend torque：5kg • cm		8			

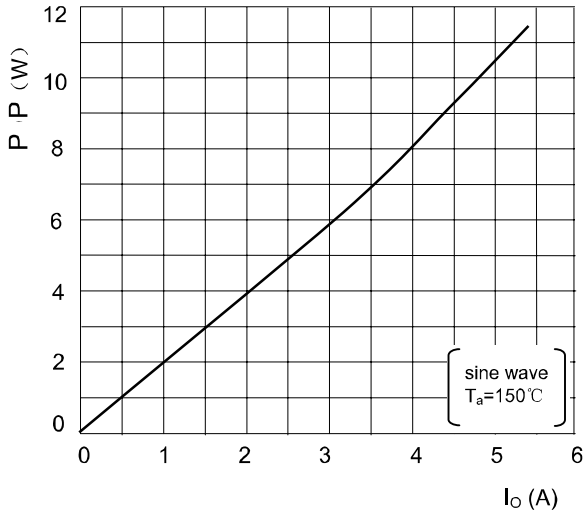
■ Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=6.0A, Pulse measurement, Rating of per diode	1.0
Peak Reverse Current	I_{RRM1}	μA	V_{RM}=V_{RRM} , Pulse measurement, Rating of per diode,	5
Thermal Resistance	$R_{\theta J-A}$	℃/W	Between junction and ambient, Without heatsink	22
	$R_{\theta J-L}$		Between junction and lead, Without heatsink	4
	$R_{\theta J-C}$		Between junction and case, With heatsink	5

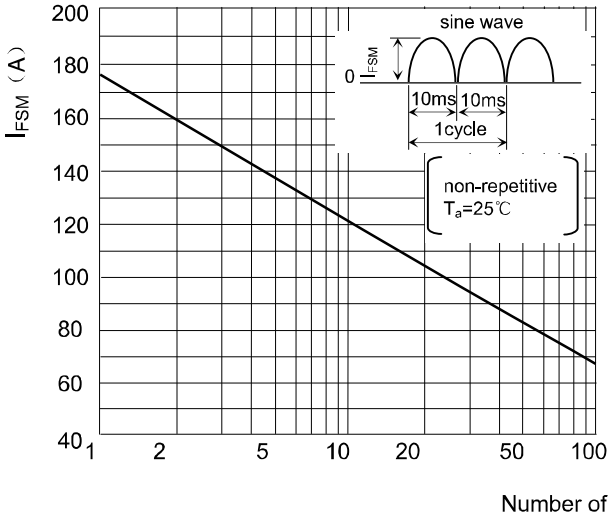
■ Characteristics(Typical)



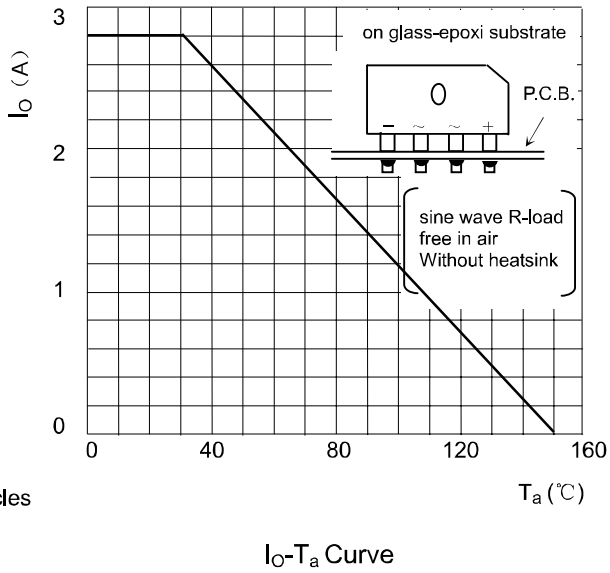
Forward Characteristics



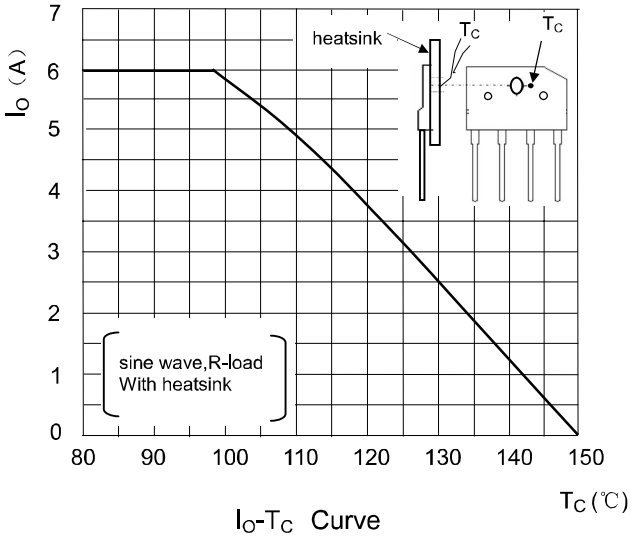
P-I_O Curve



Surge Forward Current Capability



I_O-T_a Curve



I_O-T_C Curve