EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	KBPC35xx Series
Overseas Part Number	KBPC35xx Series
Equivalent Part Number	KBPC35xx Series

EVVOSEMI®
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Single Phase Rectifier Bridge

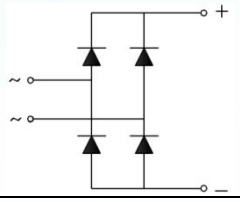
V_{RRM} 200 to 1200V

I_D 35 Amp

Features

- Very low forward voltage drop
- High surge current capability
- Low thermal resistance
- High thermal conductivity

Circuit



Applications

- Single phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Industrial automation equipment
- Input rectifiers for inverter

Module Type

Type	V_{RRM}	V_{RSM}
KBPC3502	200V	300V
KBPC3504	400V	500V
KBPC3506	600V	700V
KBPC3508	800V	900V
KBPC3510	1000V	1100V
KBPC3512	1200V	1300V

■ Maximum Ratings

Symbol	Item	Conditions	Values	Unit
I_D	Output Current	Single Phase,Sin Full Wave T_c = 55℃	35	A
I_{FSM}	Surge Forward Current	T_j = 25℃, t = 50Hz(10ms), V_R = 0V	400	A
I^2t	Circuit Fusing Consideration	t = 10ms T_j =25℃	800	A^2s
V_{ISO}	Isolation Breakdown Voltage	AC 50Hz/60Hz; R.M.S; 1min	2000	V
T_j	Operating Junction Temperature		-40 to +150	℃
T_{stg}	Storage Temperature		-40 to +125	℃
M_s	Mounting Torque	To Heatsink(M5)	2.5~3	N·m
Weight	Module (Approximately)		18	g

■ Thermal Characteristics

Symbol	Item	Conditions	Values	Unit
$R_{th(j-c)}$	Thermal Impedance, Max	Junction to Case(Per Total)	1.4	℃/W
		Junction to Case(Per Diode)	5.6	℃/W

■ Electrical Characteristics

Symbol	Item	Conditions	Values			Unit
			Min.	Typ.	Max.	
V_{FM}	Forward Voltage Drop, Max	T_j = 25℃ I_F = 17.5A	—	—	1.1	V
I_{RRM}	Repetitive Peak Reverse Current, Max	T_j = 25℃ $V_R = V_{RRM}$	—	—	0.1	mA
		T_j = 150℃ $V_R = V_{RRM}$	—	—	3	
V_{T0}	Threshold Voltage, for power loss calculation only	T_j = 125℃	0.75			V
r_T	Slope Resistance, for power loss calculation only	T_j = 125℃	4.0			mΩ

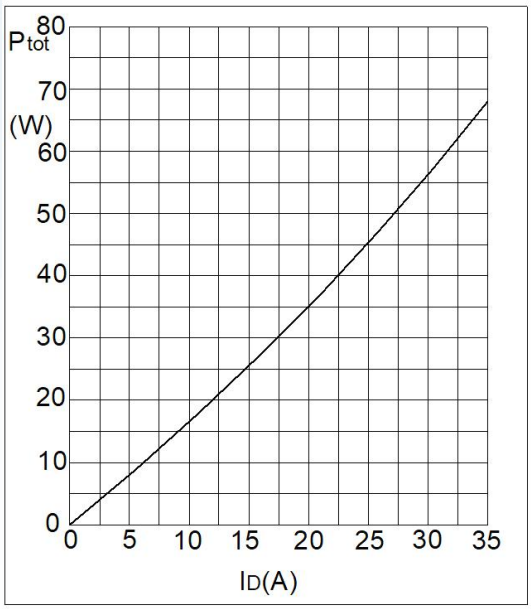


Fig1. Power Dissipation

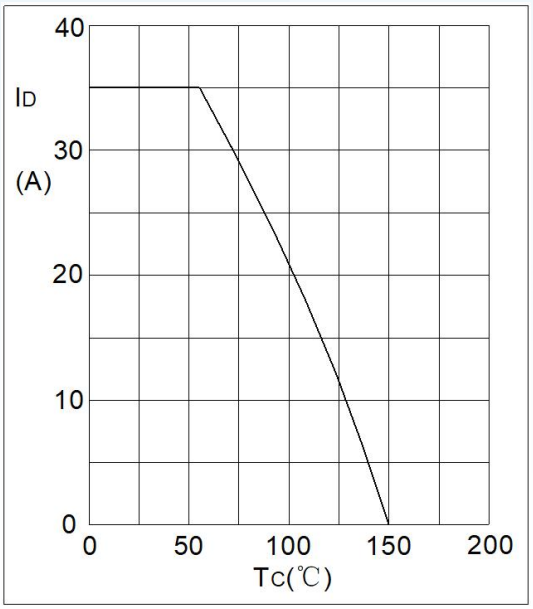


Fig2. Forward Current Derating Curve

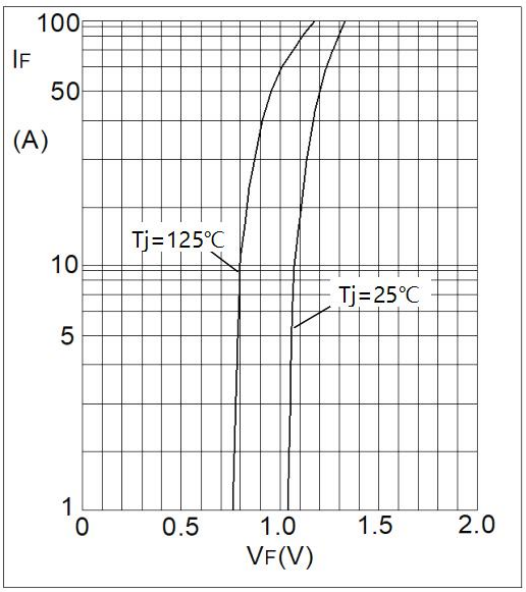


Fig3. Forward Characteristics

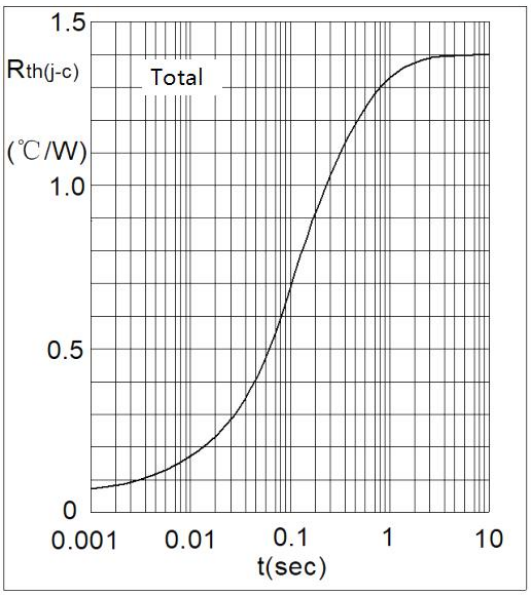


Fig4. Transient Thermal impedance

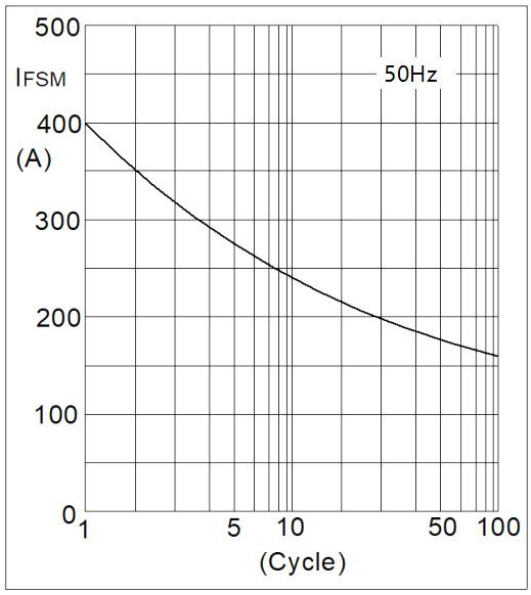
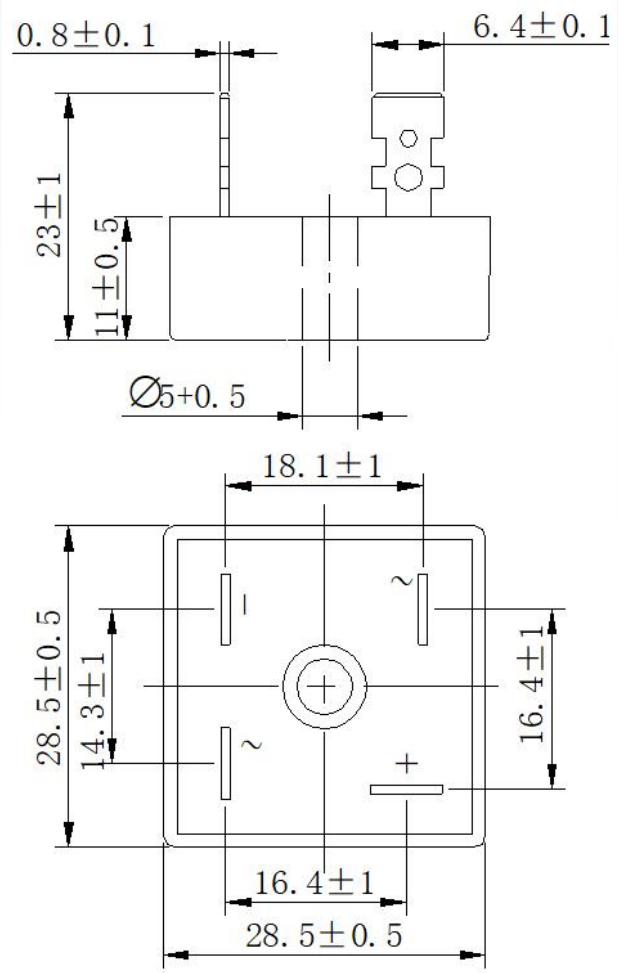


Fig5. Max Non-Repetitive Forward Surge Current

Performance Curves

Package Outline Information

CASE: KBPC



Dimensions in mm

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