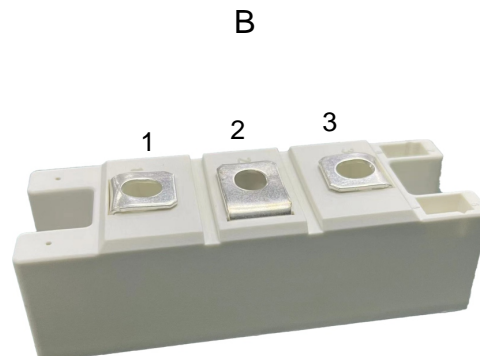


## Features

- Blocking voltage : 200V
- Very low  $V_F$
- Extremely low switching losses
- Low  $I_{RM}$ -values
- Copper internally DBC isolated



## Typical Applications

- Rectifiers in switch mode power Supplies(SMPS)
- Free wheeling diode in low voltage converters



### Module Type

Type	$V_R$	$V_{RRM}$
JB4S100-200	200V	200V

### Maximum Ratings

Parameters	Symbol	Test Conditions	Values	Unit
State the average current	$I_{F(AV)}$	$T_C = 105^\circ\text{C}$ ; Rectangular, $d=0.5$	100	A
Surge forward current	$I_{FSM}$	$t=10\text{ms}$ $T_J = 45^\circ\text{C}$	700	A
Maximum $I^2t$ for fusing	$I^2t$	$t=10\text{ms}$ $T_J = 45^\circ\text{C}$	2034	$\text{A}^2\text{s}$
Isolation Breakdown Voltage(R.M.S)	$V_{isol}$	Ac.50Hz; R.M.S; 1min	2500	V
		Ac.50Hz; R.M.S; 1 sec	3000	V
Operating Junction Temperature	$T_J$		-40~+150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-40~+150	$^\circ\text{C}$

Mounting Torque	Mt	To terminals(M6)	$5 \pm 15\%$	Nm
	Ms	To heatsink(M6)	$5 \pm 15\%$	
Module(Approximately)	Weight		$160 \pm 10$	g

Symbol	Test Conditions		Values		Units
			Typ.	Max.	
$I_R$	$V_R=V_{RRM}; T_{VJ}=25^{\circ}\text{C}$ (Pulse Width=5ms,Duty Cycle<2.0%)			0.5	mA
	$V_R=V_{RRM}; T_{VJ}=125^{\circ}\text{C}$ (Pulse Width=5ms,Duty Cycle<2.0%)			15	
$V_F$	$I_F=100\text{A}; T_{VJ}=125^{\circ}\text{C}$			0.95	V
	$I_F=100\text{A}; T_{VJ}=25^{\circ}\text{C}$			1.05	
$R_{thJC}$	Junction to case	Par leg		0.4	$^{\circ}\text{C}/\text{W}$
$R_{thCH}$			0.1		

## Performance Curves

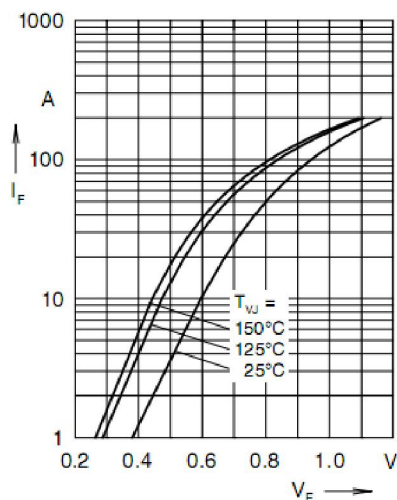


Fig. 1 Max. forward voltage drop characteristics

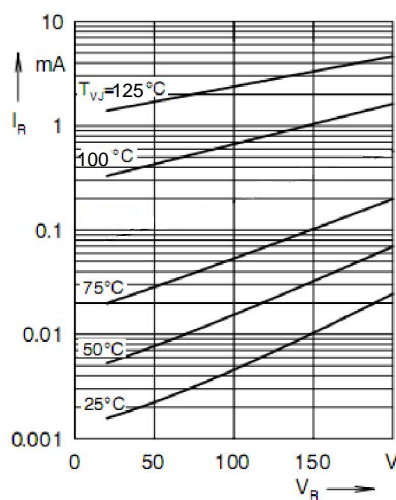


Fig. 2 Typ. reverse current  $I_R$  vs. reverse voltage  $V_R$

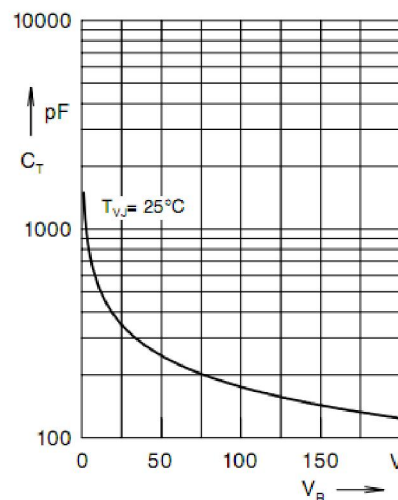


Fig. 3 Typ. junction capacitance  $C_T$  versus reverse voltage  $V_R$

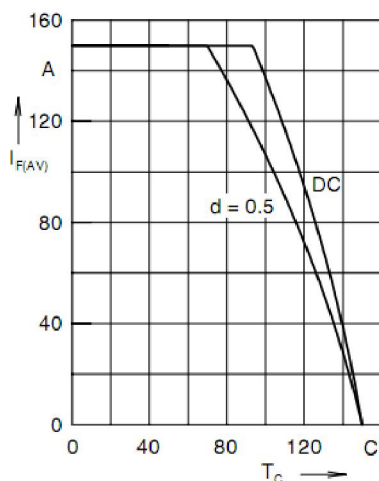


Fig. 4 Average forward current  $I_{F(AV)}$  versus case temperature  $T_C$

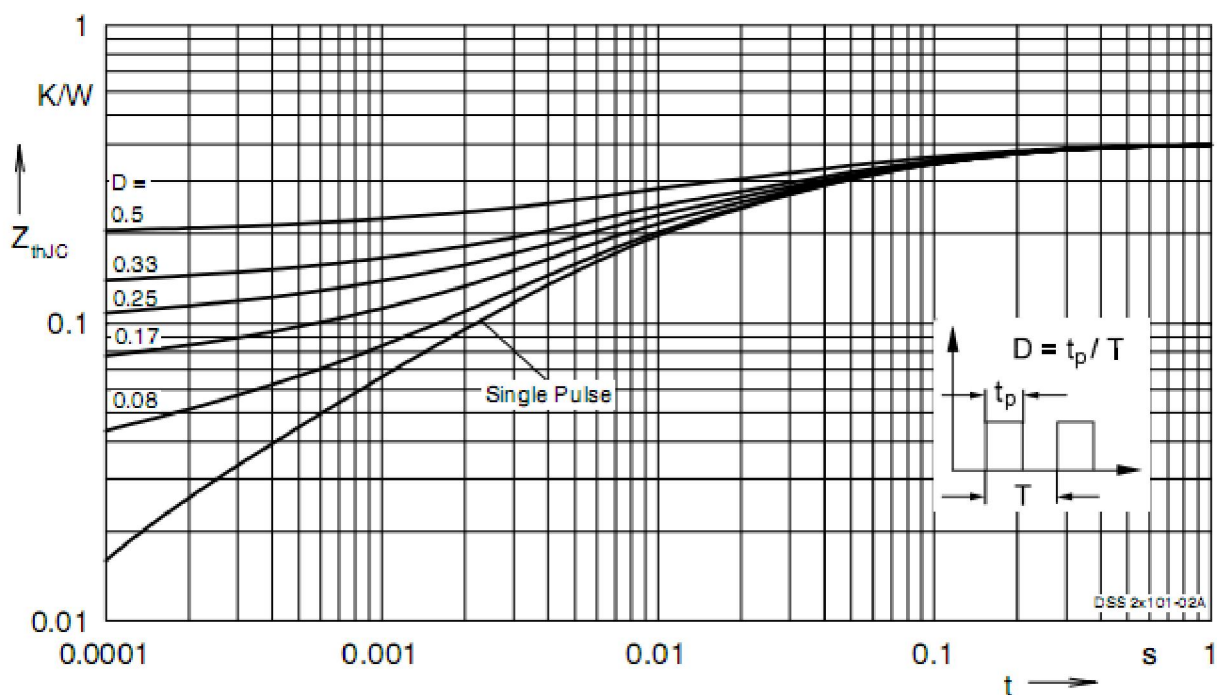
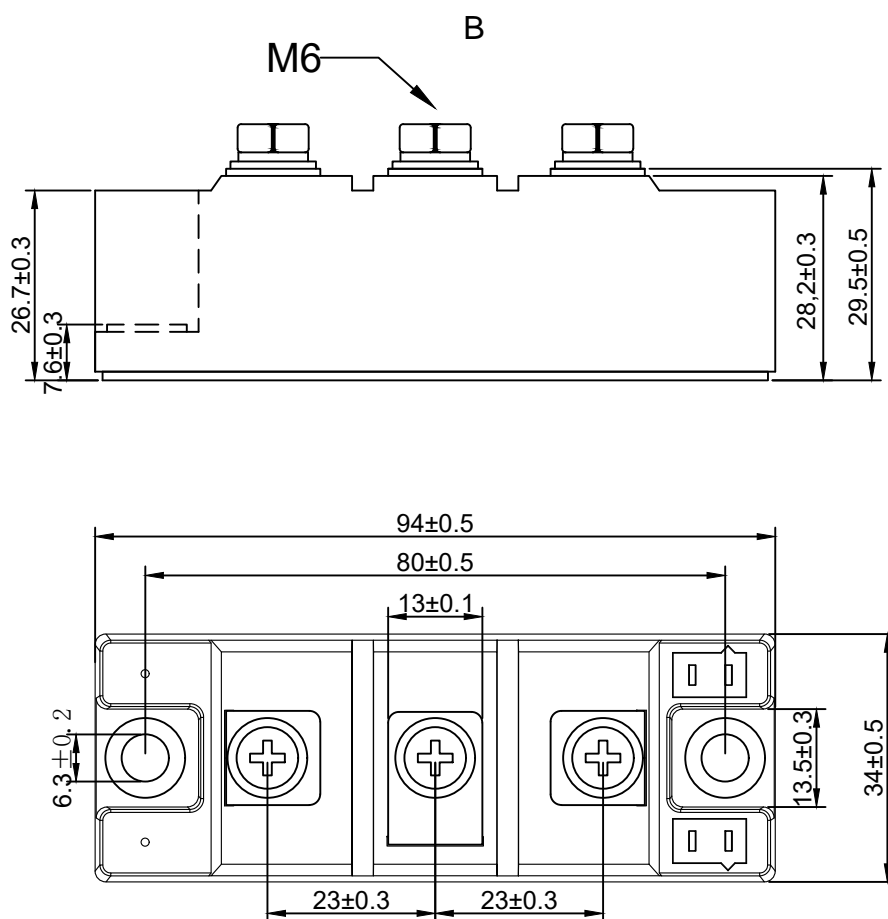


Fig. 5 Transient thermal impedance junction to case at various duty cycles

## Package Outline Information



Dimensions in mm

## Friendship Reminder

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