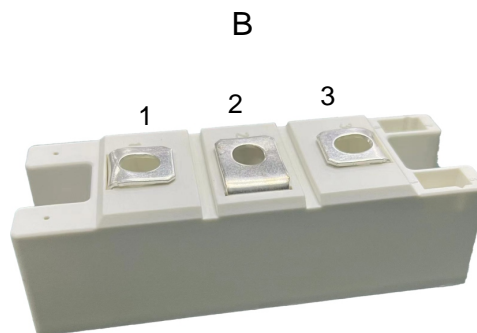


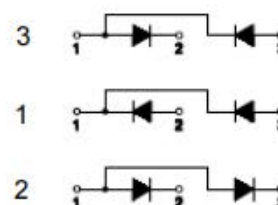
Features

- Blocking voltage : 1200V
- Heat transfer through aluminum oxide DBC Ceramic isolated metal baseplate
- Industrial standard package
- Thick copper baseplate



Typical Applications

- Power Supplies
- AC&DC Motor Drivers
- Bridge Circuits
- Welders
- Battery Supplier



Module Type

Type	V_R	V_{RRM}
JB1/B2/B3F300-120	1200V	1200V

Maximum Ratings

Parameters	Symbol	Test Conditions	Values	Unit
State the average current	$I_{F(AV)}$	Single phase ,half wave 180°conduction $T_c=100^{\circ}C$	300	A
Surge forward current	I_{FSM}	$t=10mS$ $T_J=45^{\circ}C$	2500	A
Maximum I^2t for fusing	I^2t	$t=10mS$ $T_J=45^{\circ}C$	31250	A^2s
Isolation Breakdown Voltage(R.M.S)	V_{isol}	Ac.50Hz ; R.M.S; 1min	2500	V
		Ac.50Hz ; R.M.S; 2sec	3600	V
Operating Junction Temperature	T_J		-40~+150	C
Storage Temperature	T_{stg}		-40~+125	C

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

Electrical Characteristics

Parameters	Symbol	Test Conditions	Values			Unit
			Min.	Typ.	Max.	
Maximum Forward voltage drop	V_{FM}	$T=25^{\circ}\text{C}$ $I_F=300\text{A}$	—	2.25		V
Maximum Repetitive Peak Reverse Current	I_{RRM}	$T_J=25^{\circ}\text{C}$ $V_{RD}=V_{RRM}$	—	—	5	mA
		$T_J=125^{\circ}\text{C}$ $V_{RD}=V_{RRM}$	—	—	20	mA
Maximum Reverse Recovery Time	T_{rr}	$I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$		220		ns

Thermal Characteristics

Parameters	Symbol	Test Conditions	Values	Unit
Maximum internal thermal resistance, junction to case per leg	$R_{th(J-C)}$	Per diode	0.21	$^{\circ}\text{C}/\text{W}$
Typical thermal resistance, case to heatsink per module	$R_{th(C-S)}$	Module	0.05	$^{\circ}\text{C}/\text{W}$

Performance Curves

Figure .1- Typical Forward Characteristics

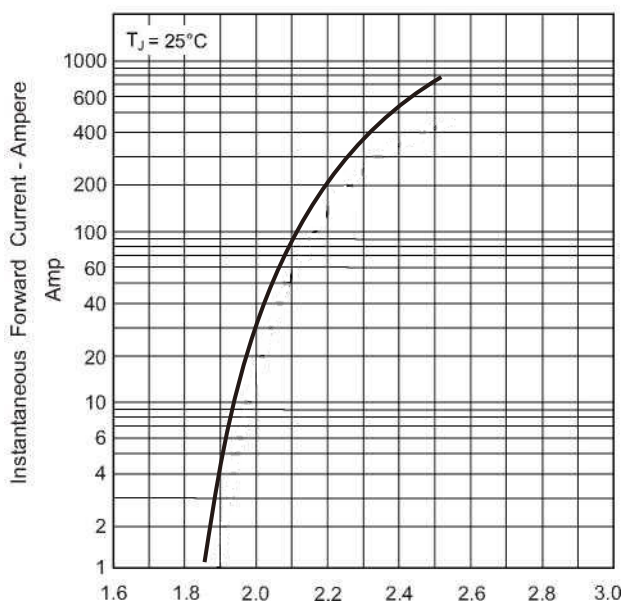


Figure .2-Forward Derating Curve

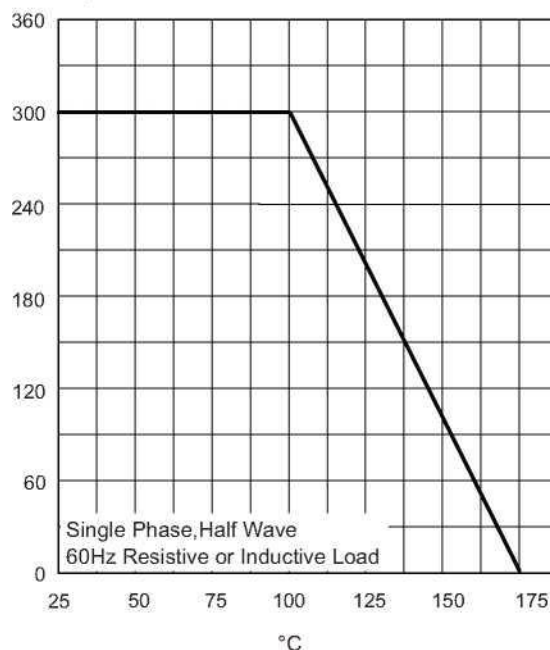


Figure .3-Peak Forward Surge Current

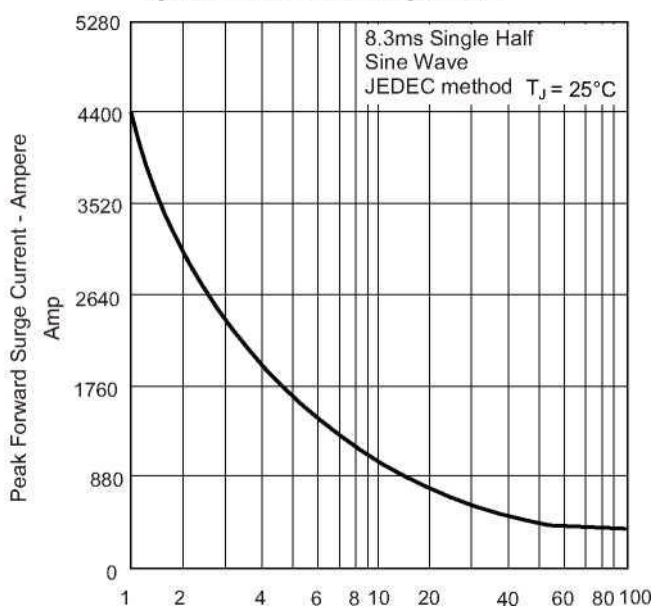
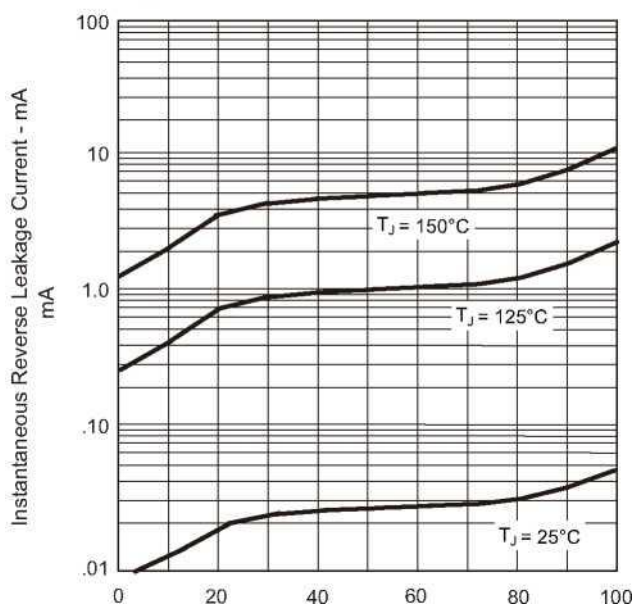
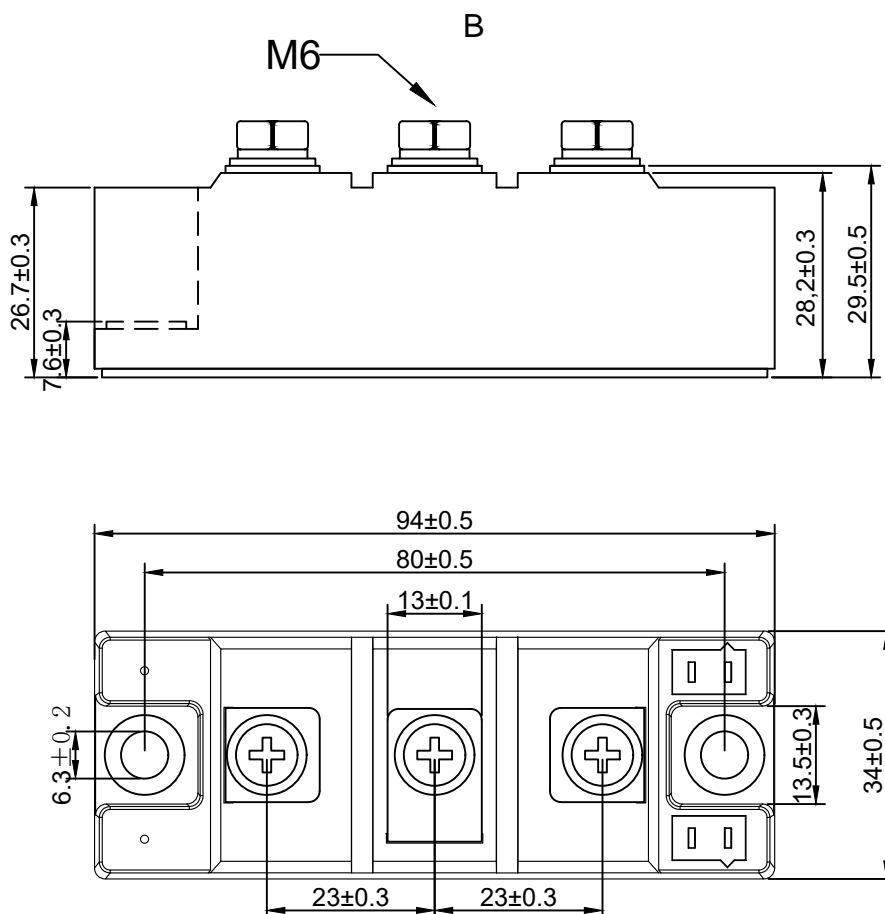


Figure .4 -Typical Reverse Characteristics



Package Outline Information



Dimensions in mm

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