JMS400MD01F1U

SBD Modules

Features

- Dual Diode Construction; May be Paralleled for High Current Output
- High surge current capability
- Designed and qualified for industrial level
- Low forward voltage
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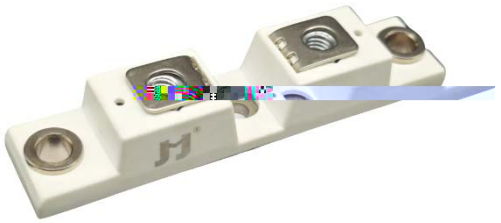
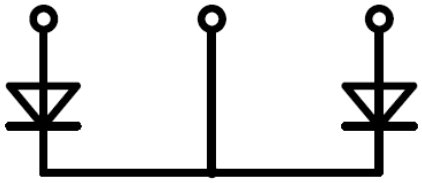
Applications

- Inversion welder
- Uninterruptible power supply and plating power supply
- Ultrasonic cleaner and welder
- Converter and chopper

Product Summary

Parameter	Value	Unit
= 10ms)	3000	A
V_F(Max)	0.90	V





Absolute Maximum Ratings (@ T_C = 25°C unless otherwise specified)

Parameter	Conditions	Symbol	Values	Unit
Repetitive peak reverse voltage	T_{vj} = 25°C	V_{RRM}	100	V
Average on-state current	T_C = 100°C, per diode	$I_{F(AV)}$	200	A
	T_C = 100°C, per module		400	
Forward surge current	Sine wave, tp=10mS, T_{vj}=45 , per diode	I_{FSM}	3000	A
I^2t Value for fusing		I^2t	45000	A^2s
Junction temperature range		T_{vj}	-40 - 150	
Storage temperature range		T_{stg}	-40 - 125	P

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Electrical Characteristics (@ T_C = 25°C unless otherwise specified)

Parameter	Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	I_F = 200A, T_{vj} = 25	V_F		0.85	0.90	V
	I_F = 200A, T_{vj} = 125			0.75	0.80	
Maximum reverse leakage current	V_R = V_{RRM}, T_{vj} = 25	I_{RRM}			0.5	mA
	V_R = V_{RRM}, T_{vj} = 125				5	

Thermal Characteristics (@ T_C = 25°C unless otherwise specified)

Parameter	Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Thermal resistance, junction to case	per diode	$R_{th(j-c)}$			0.32	K/W
Thermal resistance, junction to case	per module	$R_{th(j-c)}$			0.05	K/W
Mounting torque	Base plate to heatsink screw M6	M	3.0		4.7	N·m
	Electrode to terminal screw M6		3.0		4.7	N·m

Ordering Information

Device	Marking	Package	Weight	Inner Box	Per Carton
JMS400MD01F1U	JMS400MD01F1U	F1	70 5g/PCS	14PCS	126PCS

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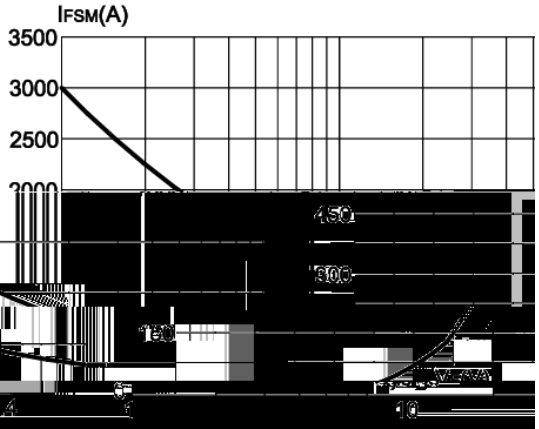
Typical Electrical & Thermal Characteristics

FIG.1: Forward characteristics(per diode)



FIG.2: Peak on-state surge current



Impedance

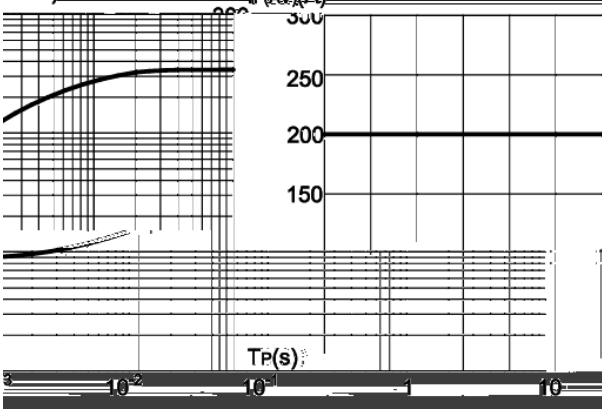


FIG.3 Forward current vs case temperature

FIG.4 Maximum transient thermal

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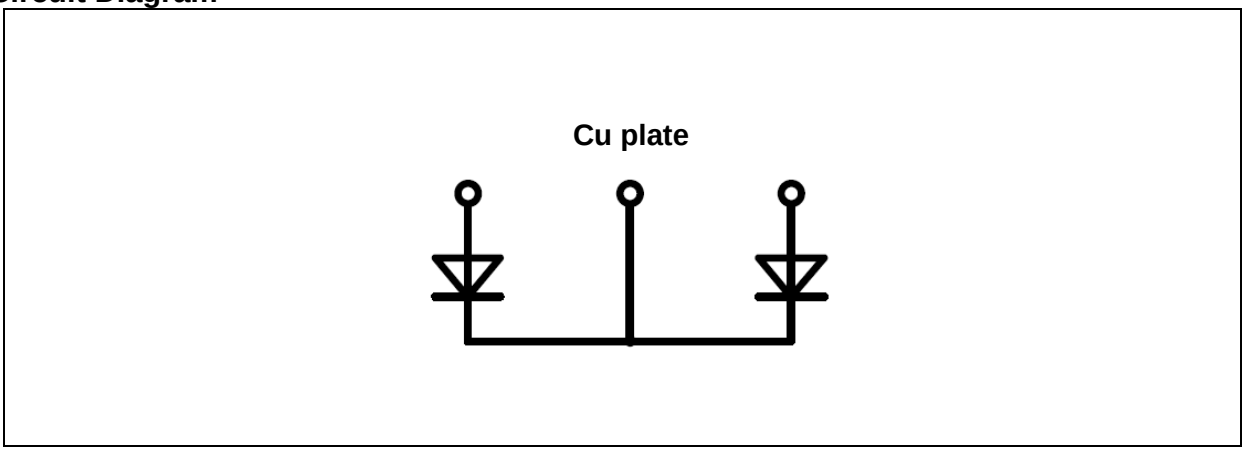
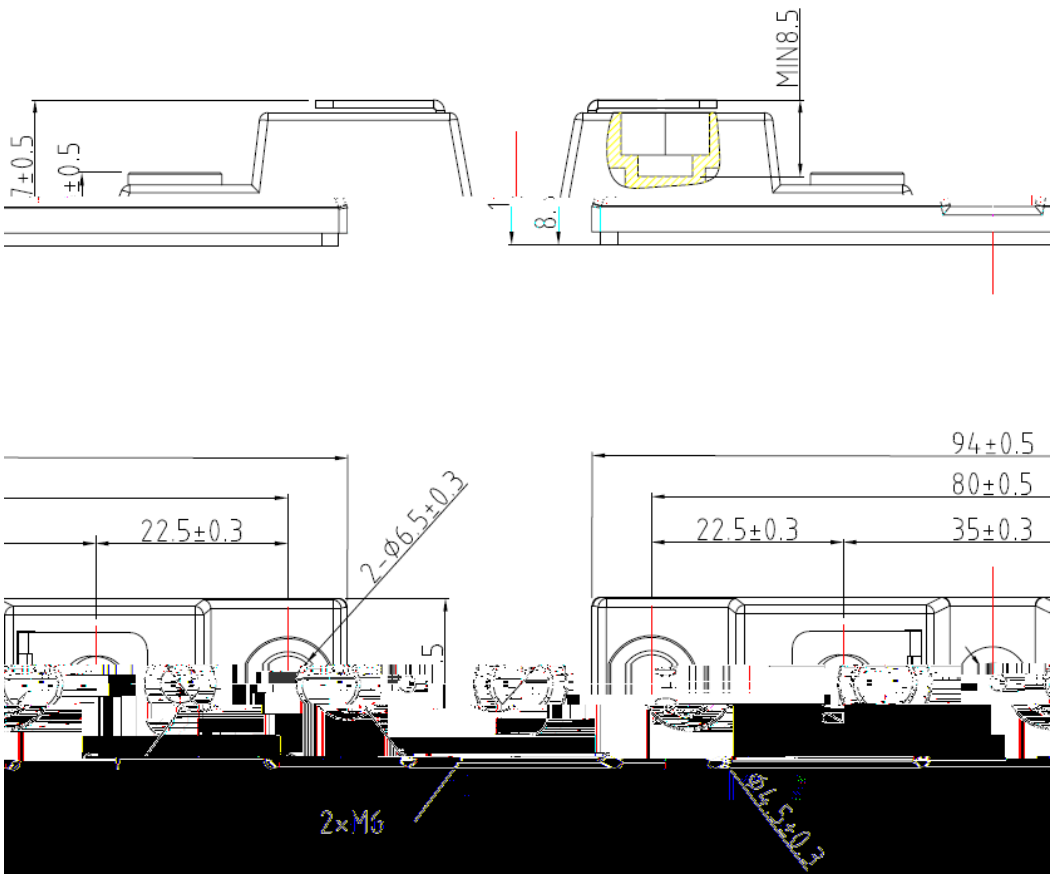
Circuit Diagram



Package Outlines (mm)



Unit of measurement: mm

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