

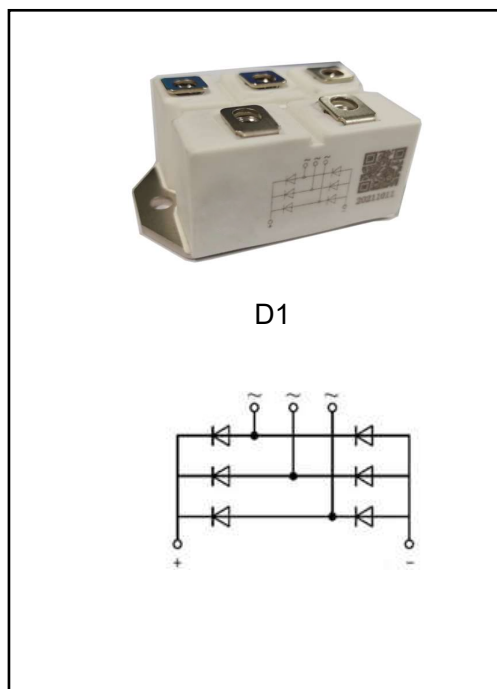
## Three Phase Rectifier Bridge Module

### Description

- 1) Low forward voltage and leakage current
- 2) Low inductance package
- 3) High surge current capability

### Typical Application

- 1) Field supply for DC motors
- 2) Line rectifiers for transistorized AC motor controllers
- 3) Non-controllable rectifiers for AC/DC converter



### Absolute Maximum Ratings (Packaged into D1, unless otherwise specified, T<sub>CASE</sub>=25°C)

Parameter	Test Conditions	Symbol	Values				Unit
			12	16	18	20	
Junction temperature range		T <sub>J</sub>	-40~+150				°C
Storage temperature range		T <sub>STG</sub>	-40~+125				°C
Repetitive peak reverse voltage		V <sub>RRM</sub>	1200	1600	1800	2000	V
Non-repetitive peak reverse voltage		V <sub>RSM</sub>	1300	1700	1900	2100	V
Output current	T <sub>C</sub> =95°C	I <sub>D</sub>	150				A
Forward surge current	1/2 cycle, Sine wave	I <sub>FSM</sub>	1500				A
Value for fusing	50Hz, T <sub>J</sub> =25°C	I <sup>2</sup> t	11200				A <sup>2</sup> s
RMS isolation voltage	A.C 50Hz(1s/1min)	V <sub>isol</sub>	3600/3000				V

### Electrical Characteristics (Packaged into D1, unless otherwise specified, $T_{CASE}=25^{\circ}C$ )

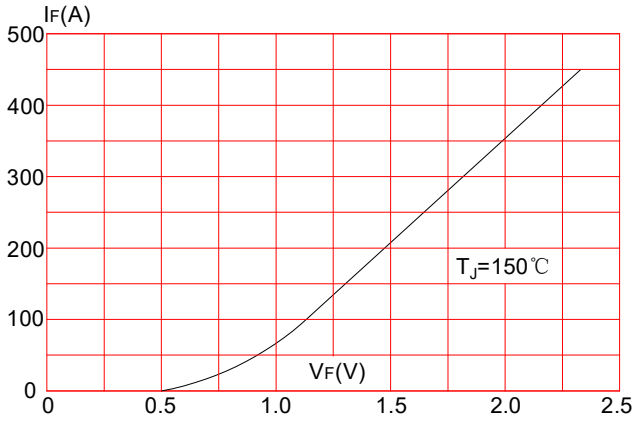
Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$I_F=150A, T_J=25^{\circ}C$	$V_{FM}$	-	-	1.35	V
Reverse leakage current	$V_R=V_{RRM}, T_J=25^{\circ}C$	$I_{RRM}$	-	-	0.5	mA
	$V_R=V_{RRM}, T_J=150^{\circ}C$		-	-	10	mA
Threshold voltage	$T_J=150^{\circ}C$ , for power loss calculation only	$V_{TO}$	-	-	0.8	V
Slope resistance		$r_T$	-	-	3.3	m $\Omega$

### Thermal Characteristics (Packaged into D1, unless otherwise specified, $T_{CASE}=25^{\circ}C$ )

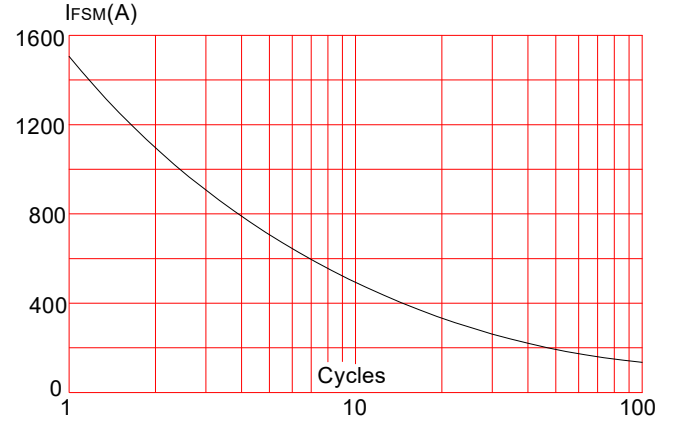
Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Thermal impedance (junction to case)	Per diode	$R_{th(j-c)}$	-	-	0.75	$^{\circ}C/W$
Mounting torque	Module and heatsink fixed torque, screw M5	M	4.25	-	5.75	Nm
	Electrode connection torque, screw M5		4.25	-	5.75	Nm
Weight			132			g
Case style			D1			

**Performance Curves**

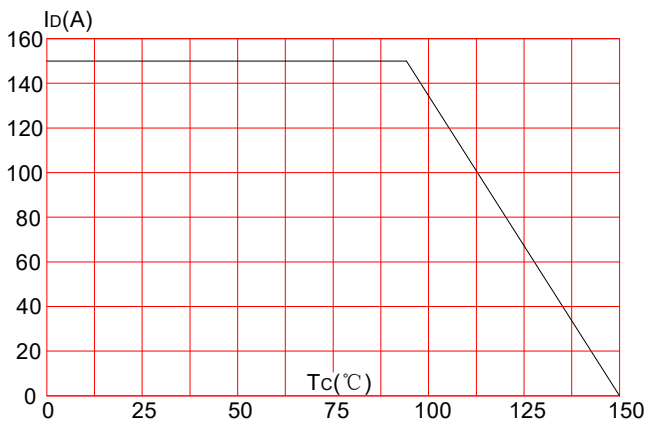
**FIG.1: Forward characteristics(per diode)**



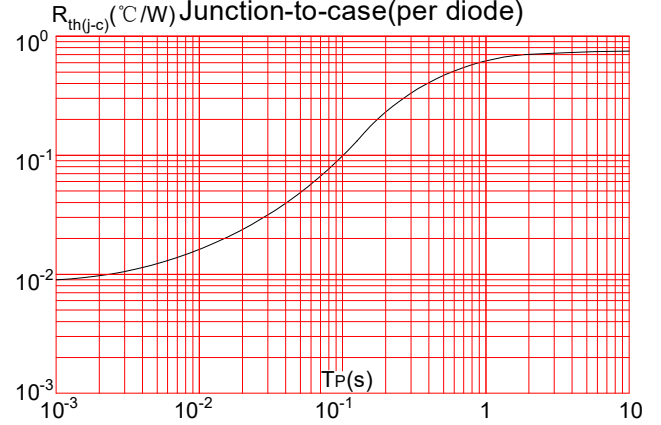
**FIG.2: Peak on-state surge current**



**FIG.3: Forward current vs. case temperature**



**FIG.4: Maximum transient thermal impedance**



**Mechanical Characteristics(mm)**

