

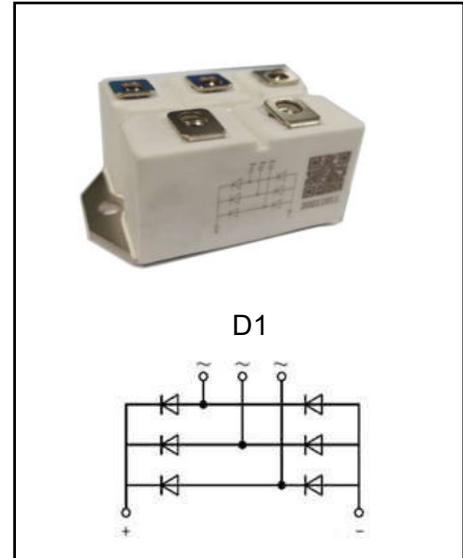
## Three Phase Rectifier Bridge Module

### 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, $T_{CASE}=25^{\circ}C$ )

Parameter	Test Conditions	Symbol	Values				Unit
			16	18	20	22	
Junction temperature range		$T_J$	-40~+150				$^{\circ}C$
Storage temperature range		$T_{STG}$	-40~+125				$^{\circ}C$
Repetitive peak reverse voltage		$V_{RRM}$	1600	1800	2000	2200	V
Non-repetitive peak reverse voltage		$V_{RSM}$	1700	1900	2100	2300	V
Output current	$T_C=95^{\circ}C$	$I_D$	100				A
Forward surge current	1/2 cycle, Sine wave	$I_{FSM}$	1000				A
Value for fusing	50Hz, $T_J=25^{\circ}C$	$I^2t$	5000				$A^2s$
RMS isolation voltage	A.C 50Hz(1s/1min)	$V_{isol}$	3600/3000				V

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

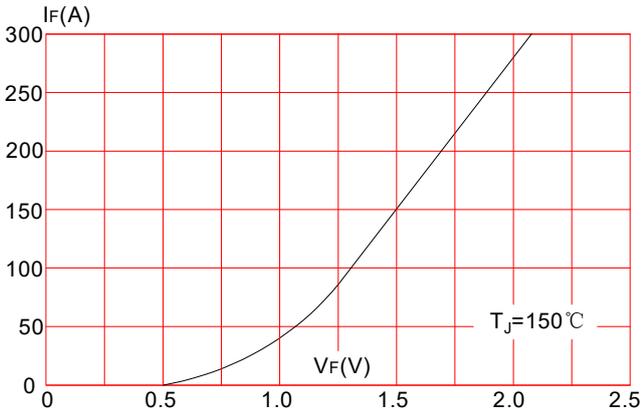
Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	$I_F=100A, T_J=25^{\circ}C$	$V_{FM}$	-	-	1.35	V
Reverse leakage current	$V_R=V_{RRM}, T_J=25^{\circ}C$	$I_{RRM}$	-	-	0.5	mA
	$V_R=V_{RRM}, T_J=150^{\circ}C$		-	-	10	mA
Threshold voltage	$T_J=150^{\circ}C$ , for power loss calculation only	$V_{TO}$	-	-	0.85	V
Slope resistance		$r_T$	-	-	4.0	m $\Omega$

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

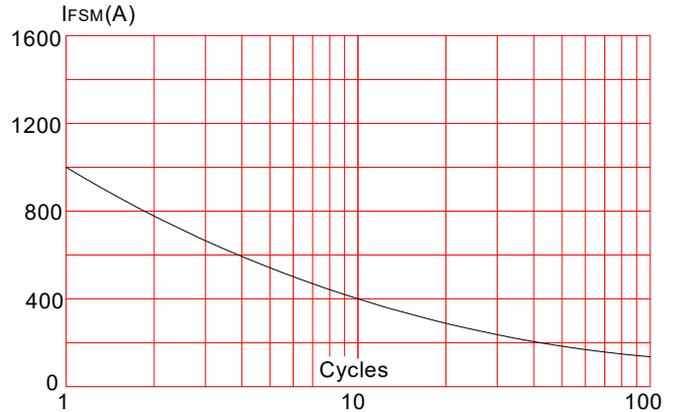
Parameter	Test Conditions	Symbol	Values			Unit
			Min.	Typ.	Max.	
Thermal impedance (junction to case)	Per diode	$R_{th(j-c)}$	-	-	0.9	$^{\circ}C/W$
Mounting torque	Module and heatsink fixed torque, screw M5	M	4.25	-	5.75	Nm
	Electrode connection torque, screw M5		4.25	-	5.75	Nm
Weight			132			g
Case style			D1			

**Performance Curves**

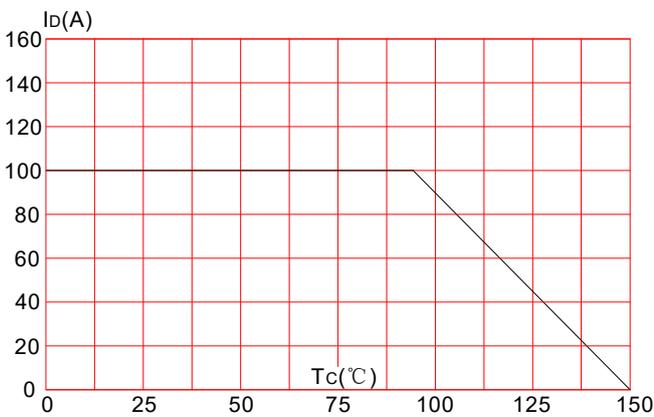
**FIG.1:** Forward characteristics(per diode)



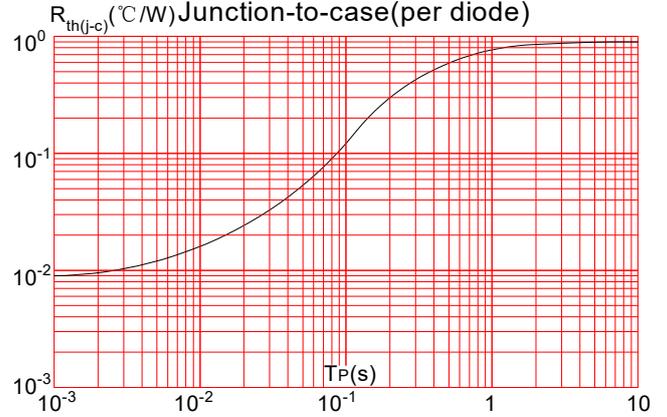
**FIG.2:** Peak on-state surge current



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



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



**Mechanical Characteristics(mm)**

