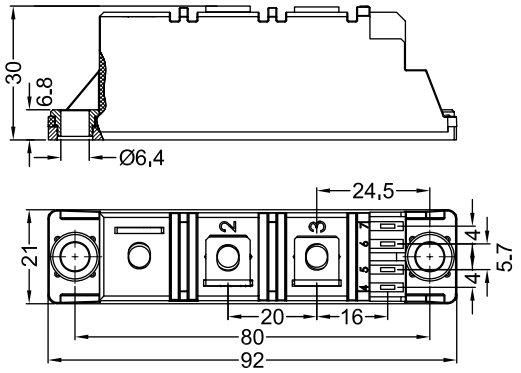
SDO80N**B

Single Diode Modules



Type	V_{RSM} V	V_{RRM} V
SDO80N06B	700	600
SDO80N08B	900	800
SDO80N10B	1100	1000
SDO80N12B	1300	1200
SDO80N14B	1500	1400
SDO80N16B	1700	1600
SDO80N18B	1900	1800
SDO80N20B	2100	2000
SDO80N22B	2300	2200

Tolerance:±0.5mm
Dimensions in mm (1mm=0.0394")



Symbol	Test Conditions		Maximum Ratings	Unit
I_{FRMS} I_{FAVM}	$T_{VJ}=T_{VJM}$ $T_C=100^oC$; 180° sine		126 80	A
I_{FSM}	$T_{VJ}=45^oC$ $V_R=0$	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	2000 2400	A
	$T_{VJ}=T_{VJM}$ $V_R=0$	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	1750 2100	
$\int i^2dt$	$T_{VJ}=45^oC$ $V_R=0$	t=10ms (50Hz), sine t=8.3ms (60Hz), sine	20000 20000	A^2s
	$T_{VJ}=T_{VJM}$ $V_R=0$	t=10ms(50Hz), sine t=8.3ms(60Hz), sine	15000 15000	
T_{VJ} T_{VJM} T_{stg}			-40...+150 150 -40...+125	^oC
V_{ISOL}	50/60Hz, RMS $I_{ISOL}\leq 1mA$	t=1min t=1s	3000 3600	V~
M_d	Mounting torque (M5) Terminal connection torque (M5)		2.5-4/22-35 2.5-4/22-35	Nm/lb.in.
Weight	Typ.		103	g

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SDO80N**B

Single Diode Modules

Symbol	Test Conditions	Characteristic Values	Unit
I_R	$T_{VJ}=T_{VJM}$; $V_R=V_{RRM}$	20	mA
V_F	I_F=300A; T_{VJ}=25°C	1.55	V
V_{TO}	For power-loss calculations only	0.85	V
r_T	$T_{VJ}=T_{VJM}$	1.8	mΩ
Q_S	T_{VJ}=125°C; I_F=50A; -di/dt=3A/us	150	uC
I_{RM}		55	A
R_{thJC}	per diode; DC current per module	0.375 0.375	K/W
R_{thJK}	per diode; DC current per module	0.575 0.575	K/W
d_S	Creepage distance on surface	12.7	mm
d_A	Strike distance through air	9.6	mm
a	Maximum allowable acceleration	50	m/s^2

FEATURES

* International standard package
* Copper base plate
* Glass passivated chips
* Isolation voltage 3600 V~
* UL file NO.310749
* RoHs compliant

APPLICATIONS

* Supplies for DC power equipment
* DC supply for PWM inverter
* Field supply for DC motors
* Battery DC power supplies

ADVANTAGES

* Space and weight savings
* Simple mounting
* Improved temperature and power cycling
* Reduced protection circuits

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SDO80N**B

Single Diode Modules

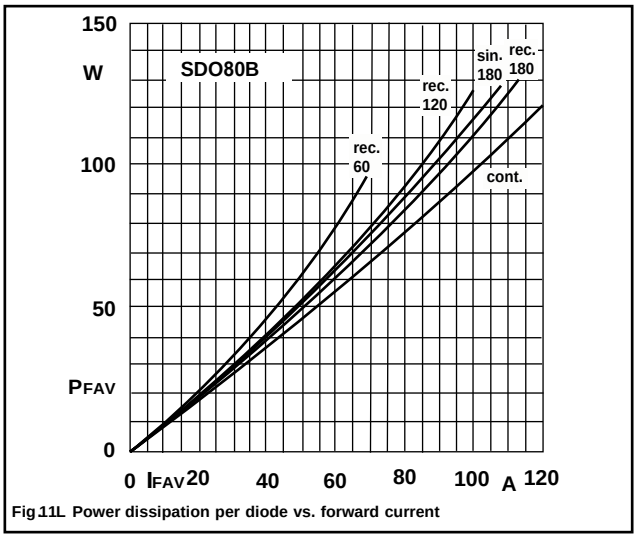


Fig 11L Power dissipation per diode vs. forward current

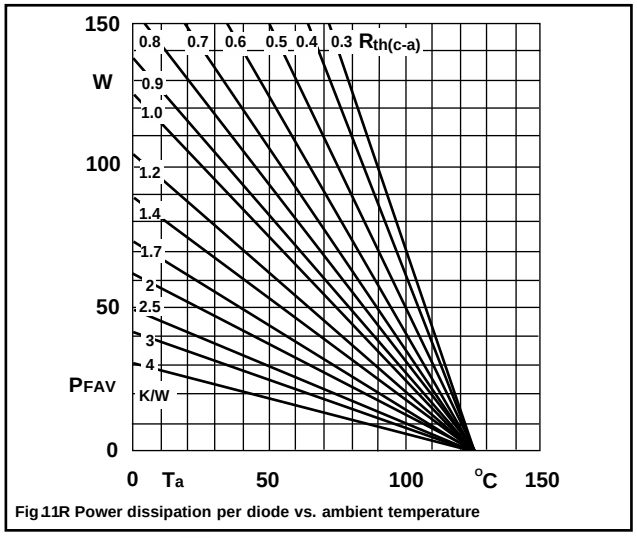


Fig 11R Power dissipation per diode vs. ambient temperature

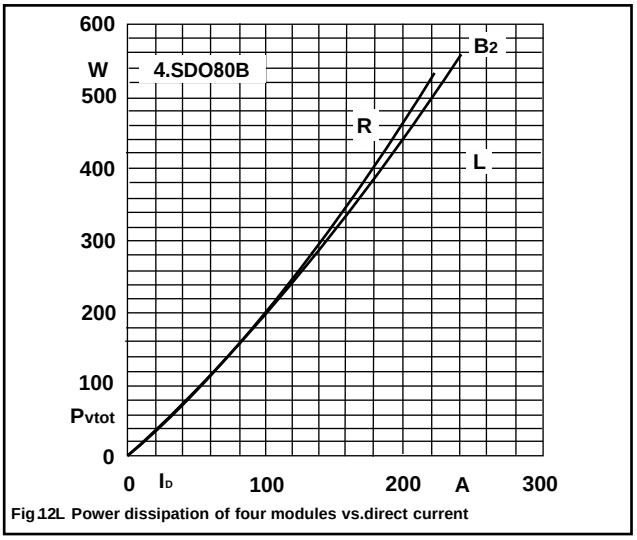


Fig 12L Power dissipation of four modules vs.direct current

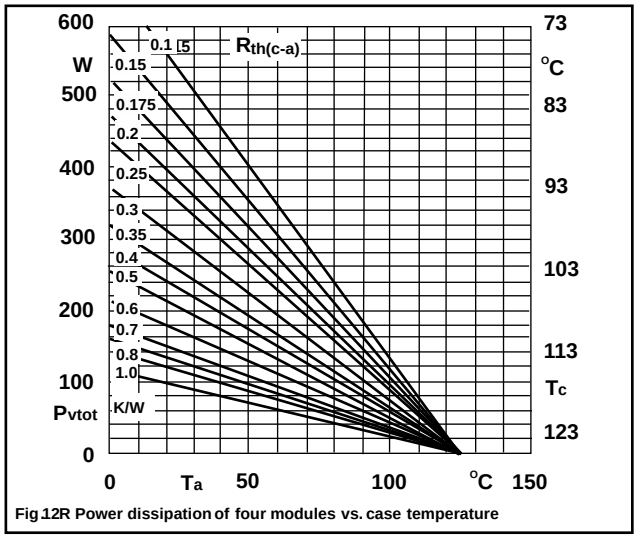


Fig 12R Power dissipation of four modules vs. case temperature

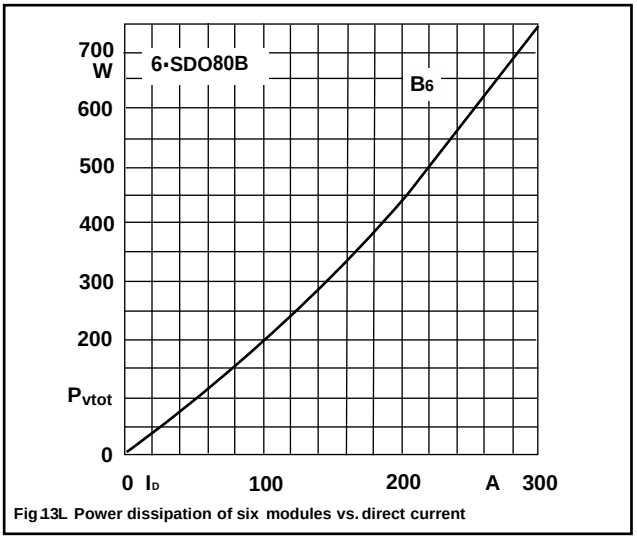


Fig 13L Power dissipation of six modules vs. direct current

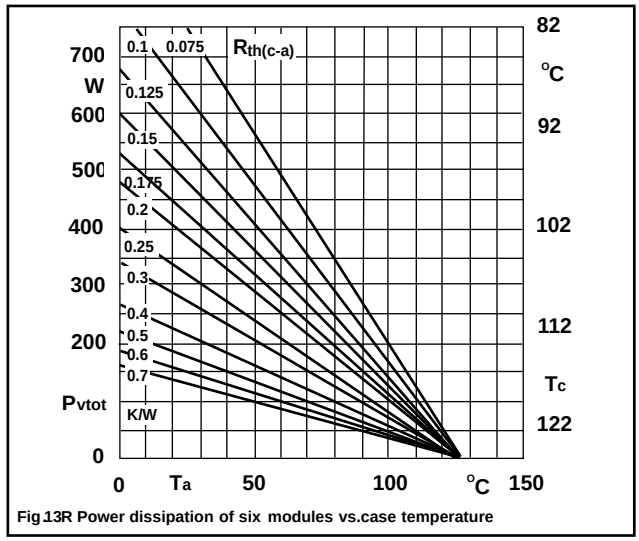


Fig 13R Power dissipation of six modules vs.case temperature

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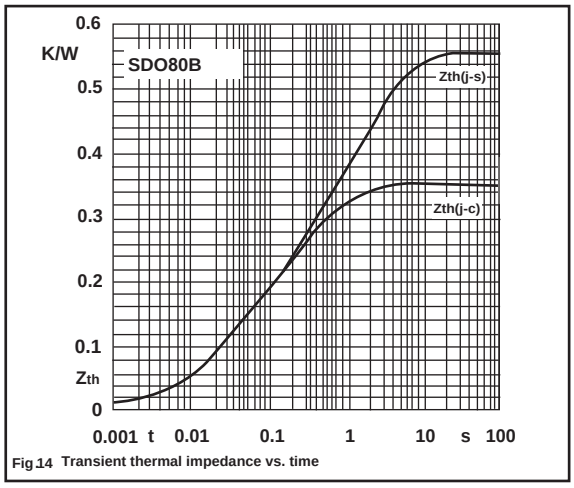


Fig.14 Transient thermal impedance vs. time

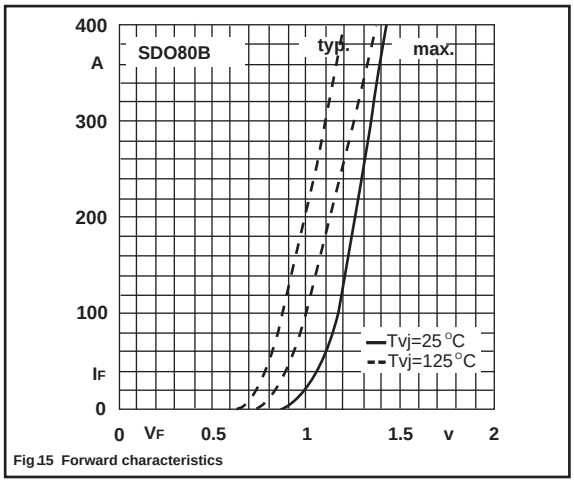


Fig.15 Forward characteristics

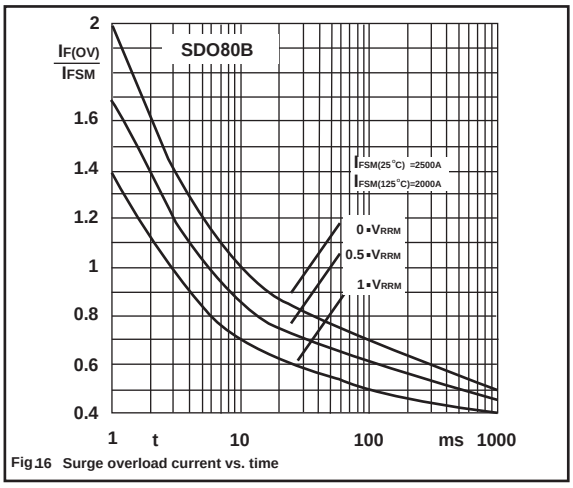


Fig.16 Surge overload current vs. time

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