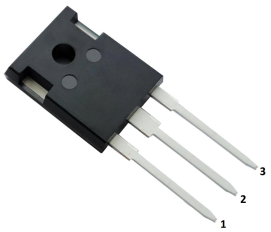
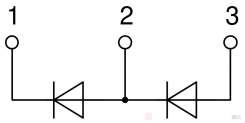
Features

- Planar passivated chips
- Very low leakage current
- Very low forward voltage drop
- Improved thermal behaviour



Applications

- Diode for main rectification
- For single and three phase bridge configurations



Absolute Maximum Ratings(Tc=25℃)

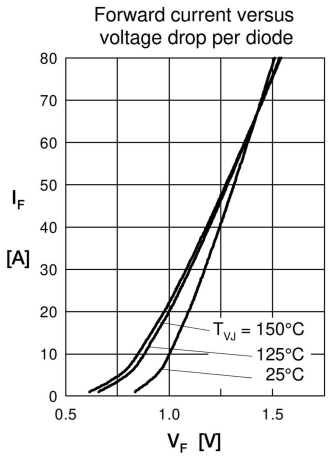
Parameter	Symbol	Test Conditions		Values	Unit
Repetitive Peak Reverse Voltage	V_{RRM}			1200	V
Reverse current,drain current	I_R	V_R=1200V	Tc=25°C	40	μA
			Tc=125°C	1.5	mA
Forward voltage drop (per)	V_F	I_F=45A	Tc=25°C	1.26	V
		I_F=90A		1.57	V
Surge Current	I_{FAV}	Tc=125°C		45	A
Threshold voltage	V_{F0}	For power loss calculation only Tc=125°C		0.81	V
Slope resistance	r_F			9.1	mΩ
Forward surge current	I_{FSM}	T=10ms,(50Hz),sine, V_R=0V		480	A
Value for fusing	I^2t	T=10ms,(50Hz),sine, V_R=0V		1.15	KA^2S
Power Dissipation	Ptot			270	W
Junction Temperature	T_J			-40~175	℃
Storage Temperature Range	T_{STG}			-40~150	
Thermal Resistance junction to case	$R_{\theta JC}$			0.55	℃/W
Thermal Resistance case to heatsink	$R_{\theta ch}$			0.3	℃/W

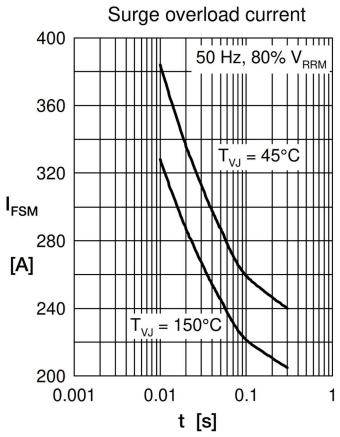
Electrical Characteristics(T_C=25°C unless otherwise specified)

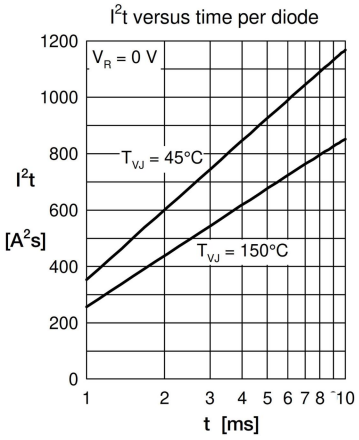
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Recovery Time	t_{rr}	IF=45A,VR=600V,	-	9.0	-	μs

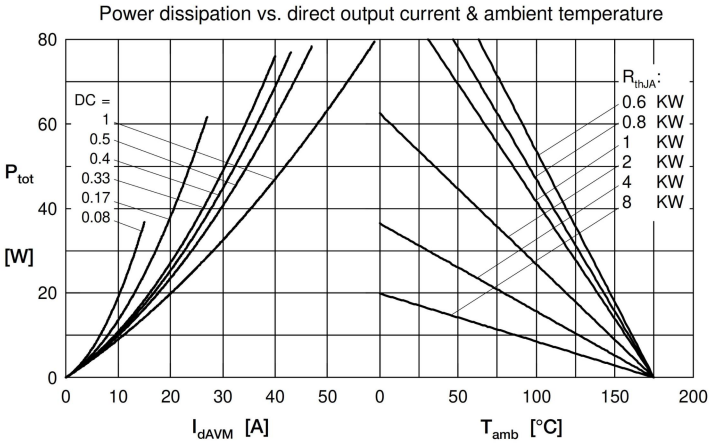
Reverse Recovery Charge	Q_{rr}	diF/dt=100A/μs	-	8.6	-	μC
Junction capacitance	C_J	V_R=400V f=1MHz	-	20	-	pF
Mounting torque	M_D		0.8	-	1.2	Nm
Mounting force with clip	F_C		20		120	N

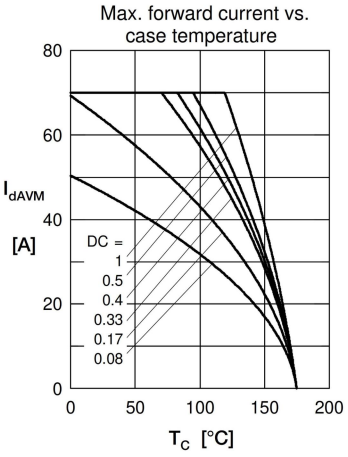
Electrical characteristics(Curves)

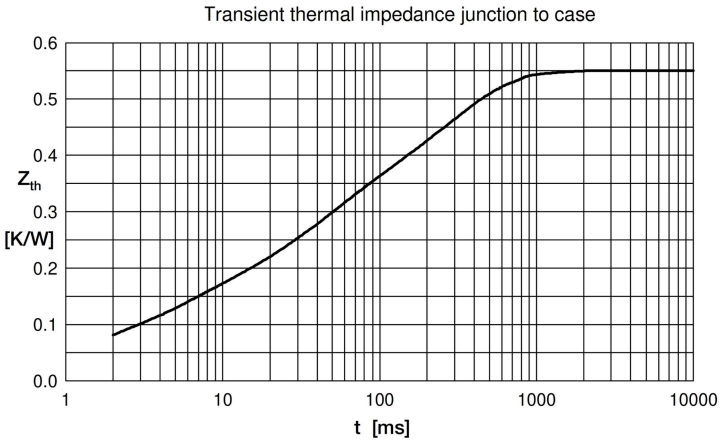












Package outline dimension