



**Vorläufige Daten
Preliminary Data**

Diode, Revers / Diode, Reverse

Höchstzulässige Werte / Maximum Rated Values

Periodische Spitzensperrspannung Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = 125^{\circ}\text{C}$	V_{RRM}	1700 1700	V
Dauergleichstrom Continuous DC forward current		I_F	400	A
Periodischer Spitzenstrom Repetitive peak forward current	$t_P = 1 \text{ ms}$	I_{FRM}	800	A
Grenzlastintegral I^2t - value	$V_R = 0 \text{ V}, t_P = 10 \text{ ms}, T_{vj} = 125^{\circ}\text{C}$	I^2t	45,0	kA^2s
Mindesteinschaltdauer Minimum turn-on time		$t_{on \text{ min}}$	10,0	μs

Charakteristische Werte / Characteristic Values

		min.	typ.	max.	
Durchlassspannung Forward voltage	$I_F = 400 \text{ A}, V_{GE} = 0 \text{ V}$ $T_{vj} = 25^{\circ}\text{C}$	V_F	2,10	2,50	V
	$I_F = 400 \text{ A}, V_{GE} = 0 \text{ V}$ $T_{vj} = 125^{\circ}\text{C}$				
Rückstromspitze Peak reverse recovery current	$I_F = 400 \text{ A}, -di_F/dt = 2400 \text{ A}/\mu\text{s} (T_{vj}=125^{\circ}\text{C})$ $T_{vj} = 25^{\circ}\text{C}$	I_{RM}	270	320	A
	$V_R = 900 \text{ V}$ $T_{vj} = 125^{\circ}\text{C}$				
Sperrverzögerungsladung Recovered charge	$I_F = 400 \text{ A}, -di_F/dt = 2400 \text{ A}/\mu\text{s} (T_{vj}=125^{\circ}\text{C})$ $T_{vj} = 25^{\circ}\text{C}$	Q_r	75,0	145	μC
	$V_R = 900 \text{ V}$ $T_{vj} = 125^{\circ}\text{C}$				
Abschaltenergie pro Puls Reverse recovery energy	$I_F = 400 \text{ A}, -di_F/dt = 2400 \text{ A}/\mu\text{s} (T_{vj}=125^{\circ}\text{C})$ $T_{vj} = 25^{\circ}\text{C}$	E_{rec}	35,0	70,0	mJ
	$V_R = 900 \text{ V}$ $T_{vj} = 125^{\circ}\text{C}$				
Wärmewiderstand, Chip bis Gehäuse Thermal resistance, junction to case	pro Diode / per diode	R_{thJC}		68,0	K/kW
Wärmewiderstand, Gehäuse bis Kühlkörper Thermal resistance, case to heatsink	pro Diode / per diode $\lambda_{\text{Paste}} = 1 \text{ W}/(\text{m}\cdot\text{K}) / \lambda_{\text{grease}} = 1 \text{ W}/(\text{m}\cdot\text{K})$	R_{thCH}	40,0		K/kW
Temperatur im Schaltbetrieb Temperature under switching conditions		$T_{vj \text{ op}}$	-40	125	$^{\circ}\text{C}$

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Modul / Module

Isolations-Prüfspannung Isolation test voltage	RMS, f = 50 Hz, t = 1 min.	V _{ISOL}	4,0		kV
Innere Isolation Internal isolation	Basisisolierung (Schutzklasse 1, EN61140) basic insulation (class 1, IEC 61140)		AIN		
Kriechstrecke Creepage distance	Kontakt - Kühlkörper / terminal to heatsink Kontakt - Kontakt / terminal to terminal		32,2		mm
Luftstrecke Clearance	Kontakt - Kühlkörper / terminal to heatsink Kontakt - Kontakt / terminal to terminal		19,1		mm
Vergleichszahl der Kriechwegbildung Comperative tracking index		CTI	> 400		
			min.	typ.	max.
Wärmewiderstand, Gehäuse bis Kühlkörper Thermal resistance, case to heatsink	pro Modul / per module $\lambda_{\text{Paste}} = 1 \text{ W}/(\text{m}\cdot\text{K}) / \lambda_{\text{grease}} = 1 \text{ W}/(\text{m}\cdot\text{K})$	R _{thCH}		20,0	K/kW
Modulstreuintduktivität Stray inductance module		L _{sCE}		58	nH
Modulleitungswiderstand, Anschlüsse - Chip Module lead resistance, terminals - chip	T _C = 25°C, pro Schalter / per switch	R _{CC+EE'}		0,78	mΩ
Lagertemperatur Storage temperature		T _{stg}	-40		125 °C
Anzugsdrehmoment f. Modulmontage Mounting torque for modul mounting	Schraube M6 - Montage gem. gültiger Applikationsschrift Screw M6 - Mounting according to valid application note	M	4,25	-	5,75 Nm
Anzugsdrehmoment f. elektr. Anschlüsse Terminal connection torque	Schraube M5 - Montage gem. gültiger Applikationsschrift Screw M5 - Mounting according to valid application note	M	3,6	-	4,2 Nm
Gewicht Weight		G		500	g

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