



**Vorläufige Daten
Preliminary Data**

Diode, Revers / Diode, Reverse

Höchstzulässige Werte / Maximum Rated Values

Periodische Spitzensperrspannung Repetitive peak reverse voltage	$T_{vj} = 25^{\circ}\text{C}$ $T_{vj} = -25^{\circ}\text{C}$	V_{RRM}	3300 3300	V
Dauergleichstrom Continuous DC forward current		I_F	800	A
Periodischer Spitzenstrom Repetitive peak forward current	$t_P = 1 \text{ ms}$	I_{FRM}	1600	A
Grenzlastintegral I^2t - value	$V_R = 0 \text{ V}$, $t_P = 10 \text{ ms}$, $T_{vj} = 125^{\circ}\text{C}$	I^2t	220	kA^2s
Spitzenverlustleistung Maximum power dissipation	$T_{vj} = 125^{\circ}\text{C}$	P_{RQM}	1600	kW
Mindesteinschaltdauer Minimum turn-on time		$t_{on \text{ min}}$	10,0	μs

Charakteristische Werte / Characteristic Values

			min.	typ.	max.	
Durchlassspannung Forward voltage	$I_F = 800 \text{ A}$, $V_{GE} = 0 \text{ V}$	$T_{vj} = 25^{\circ}\text{C}$	V_F	2,80	3,50	V
	$I_F = 800 \text{ A}$, $V_{GE} = 0 \text{ V}$	$T_{vj} = 125^{\circ}\text{C}$				
Rückstromspitze Peak reverse recovery current	$I_F = 800 \text{ A}$, $-di_F/dt = 4500 \text{ A}/\mu\text{s}$ ($T_{vj}=125^{\circ}\text{C}$) $V_R = 1800 \text{ V}$	$T_{vj} = 25^{\circ}\text{C}$	I_{RM}	1100	1300	A A
		$T_{vj} = 125^{\circ}\text{C}$				
Sperrverzögerungsladung Recovered charge	$I_F = 800 \text{ A}$, $-di_F/dt = 4500 \text{ A}/\mu\text{s}$ ($T_{vj}=125^{\circ}\text{C}$) $V_R = 1800 \text{ V}$	$T_{vj} = 25^{\circ}\text{C}$	Q_r	500	900	μC μC
		$T_{vj} = 125^{\circ}\text{C}$				
Abschaltenergie pro Puls Reverse recovery energy	$I_F = 800 \text{ A}$, $-di_F/dt = 4500 \text{ A}/\mu\text{s}$ ($T_{vj}=125^{\circ}\text{C}$) $V_R = 1800 \text{ V}$	$T_{vj} = 25^{\circ}\text{C}$	E_{rec}	490	1150	mJ mJ
		$T_{vj} = 125^{\circ}\text{C}$				
Wärmewiderstand, Chip bis Gehäuse Thermal resistance, junction to case	pro Diode / per diode		R_{thJC}		26,0	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}	16,0		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}	6,0		kV
Teilentladungs-Aussetzspannung Partial discharge extinction voltage	RMS, f = 50 Hz, Q _{PD} ≤ 10 pC (acc. to IEC 1287)	V _{ISOL}	2,6		kV
Kollektor-Emitter-Gleichsperrspannung DC stability	T _{vj} = 25°C, 100 fit	V _{CE D}	1800		V
Material Modulgrundplatte Material of module baseplate			AISIC		
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 32,2		mm
Luftstrecke Clearance	Kontakt - Kühlkörper / terminal to heatsink Kontakt - Kontakt / terminal to terminal		19,1 19,1		mm
Vergleichszahl der Kriechwegbildung Comperative tracking index		CTI	> 400		
			min.	typ.	max.
Modulstreuinduktivität Stray inductance module		L _{SCE}		12	nH
Modulleitungswiderstand, Anschlüsse - Chip Module lead resistance, terminals - chip	T _c = 25°C, pro Schalter / per switch	R _{CC+EE'} R _{AA'+CC'}		0,19 0,34	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 M4 - Montage gem. gültiger Applikationsschrift Screw M4 - Mounting according to valid application note Schraube M8 - Montage gem. gültiger Applikationsschrift Screw M8 - Mounting according to valid application note	M	1,8 8,0	-	2,1 10 Nm
Gewicht Weight		G		1500	g

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