Diode, Wechselrichter / Diode, Inverter

Höchstzulässige Werte / Maximum Rated Values

Periodische Spitzensperrspannung Repetitive peak reverse voltage	T_{vj} = 25°C	V_{RRM}	1200	V
Dauergleichstrom Continuous DC forward current		I_F	2400	A
Periodischer Spitzenstrom Repetitive peak forward current	t_P = 1 ms	I_{FRM}	4800	A
Grenzlastintegral I²t - value	V_R = 0 V, t_P = 10 ms, T_{vj} = 125°C V_R = 0 V, t_P = 10 ms, T_{vj} = 150°C	I²t	750 725	kA²s kA²s

Charakteristische Werte / Characteristic Values

			min.	typ.	max.	
Durchlassspannung Forward voltage	I_F = 2400 A, V_{GE} = 0 V T_{vj} = 25°C I_F = 2400 A, V_{GE} = 0 V T_{vj} = 125°C I_F = 2400 A, V_{GE} = 0 V T_{vj} = 150°C	V_F		1,80 1,75 1,70	2,35 2,30 2,25	V V V
Rückstromspitze Peak reverse recovery current	I_F = 2400 A, - di_F/dt = 6250 A/µs (T_{vj}=150°C) T_{vj} = 25°C V_R = 600 V T_{vj} = 125°C V_{GE} = -15 V T_{vj} = 150°C	I_{RM}		805 1150 1200		A A A
Sperrverzögerungsladung Recovered charge	I_F = 2400 A, - di_F/dt = 6250 A/µs (T_{vj}=150°C) T_{vj} = 25°C V_R = 600 V T_{vj} = 125°C V_{GE} = -15 V T_{vj} = 150°C	Q_r		245 430 490		µC µC µC
Abschaltenergie pro Puls Reverse recovery energy	I_F = 2400 A, - di_F/dt = 6250 A/µs (T_{vj}=150°C) T_{vj} = 25°C V_R = 600 V T_{vj} = 125°C V_{GE} = -15 V T_{vj} = 150°C	E_{rec}		105 185 210		mJ mJ mJ
Wärmewiderstand, Chip bis Kühlkörper Thermal resistance, junction to heatsink	pro Diode / per diode valid with IFX pre-applied thermal interface material	R_{thJH}			21,2	K/kW
Temperatur im Schaltbetrieb Temperature under switching conditions		$T_{vj\,op}$	-40		150	°C

Modul / Module

Isolations-Prüfspannung Isolation test voltage	RMS, f = 50 Hz, t = 1 min.	V_{ISOL}		2,5		kV
Material Modulgrundplatte Material of module baseplate				Cu		
Innere Isolation Internal isolation	Basisisolierung (Schutzklasse 1, EN61140) basic insulation (class 1, IEC 61140)			Al_2O_3		
Kriechstrecke Creepage distance	Kontakt - Kühlkörper / terminal to heatsink Kontakt - Kontakt / terminal to terminal			32,0 32,0		mm
Luftstrecke Clearance	Kontakt - Kühlkörper / terminal to heatsink Kontakt - Kontakt / terminal to terminal			19,0 19,0		mm
Vergleichszahl der Kriechwegbildung Comperative tracking index		CTI		> 400		
			min.	typ.	max.	
Modulstreuinduktivität Stray inductance module		L_{sCE}		6,0		nH
Modulleitungswiderstand, Anschlüsse - Chip Module lead resistance, terminals - chip	T_H = 25°C, pro Schalter / per switch	$R_{CC'+EE'}$		0,10		mΩ
Lagertemperatur Storage temperature		T_{stg}	-40		125	°C
Höchstzulässige Bodenplattenbetriebstemperatur Maximum baseplate operation temperature		T_{BPmax}			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	1,7 8,0	- -	2,1 10	Nm Nm
Gewicht Weight		G		1900		g

Lagerung und Transport von Modulen mit TIM laut AN2012-07
Storage and shipment of modules with TIM according to AN2012-07