

vorläufige Daten
preliminary data

Höchstzulässige Werte / Maximum rated values

Elektrische Eigenschaften / Electrical properties

Sperrspannung der Diode Diode reverse voltage	$T_{vj} = 25^{\circ}\text{C}$	V_{CES}	1700	V
Dauergleichstrom DC forward current	$T_C = 80^{\circ}\text{C}$	I_F	200	A
Periodischer Spitzenstrom repetitive peak forward current	$t_p = 1\text{ ms}$	I_{FRM}	400	A
Grenzlastintegral der Diode I^2t - value, Diode	$V_R = 0\text{V}$, $t_p = 10\text{ms}$, $T_{vj} = 125^{\circ}\text{C}$	I^2t	14,5	$\text{k A}^2\text{s}$
Isolations-Prüfspannung insulation test voltage	RMS, $f = 50\text{ Hz}$, $t = 1\text{ min.}$	V_{ISOL}	4,0	kV

Charakteristische Werte / Characteristic values

Diode / Diode			min.	typ.	max.	
Durchlaßspannung forward voltage	$I_F = 200\text{A}$, $V_{GE} = 0\text{V}$, $T_{vj} = 25^{\circ}\text{C}$	V_F	-	2,2	2,6	V
	$I_F = 200\text{A}$, $V_{GE} = 0\text{V}$, $T_{vj} = 125^{\circ}\text{C}$		-	2,0	-	V
Rückstromspitze peak reverse recovery current	$I_F = 200\text{A}$, - $di_F/dt = 3000\text{A}/\mu\text{s}$	I_{RM}	-	-	-	-
	$V_R = 900\text{V}$, $V_{GE} = -15\text{V}$, $T_{vj} = 25^{\circ}\text{C}$		-	130	-	A
	$V_R = 900\text{V}$, $V_{GE} = -15\text{V}$, $T_{vj} = 125^{\circ}\text{C}$		-	190	-	A
Sperrverzögerungsladung recovered charge	$I_F = 200\text{A}$, - $di_F/dt = 3000\text{A}/\mu\text{s}$	Q_r	-	-	-	-
	$V_R = 900\text{V}$, $V_{GE} = -15\text{V}$, $T_{vj} = 25^{\circ}\text{C}$		-	22	-	μAs
	$V_R = 900\text{V}$, $V_{GE} = -15\text{V}$, $T_{vj} = 125^{\circ}\text{C}$		-	50	-	μAs
Abschaltenergie pro Puls reverse recovery energy	$I_F = 200\text{A}$, - $di_F/dt = 3000\text{A}/\mu\text{s}$	E_{rec}	-	-	-	-
	$V_R = 900\text{V}$, $V_{GE} = -15\text{V}$, $T_{vj} = 25^{\circ}\text{C}$		-	10	-	mWs
	$V_R = 900\text{V}$, $V_{GE} = -15\text{V}$, $T_{vj} = 125^{\circ}\text{C}$		-	20	-	mWs

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Technische Information / Technical Information

IGBT-Module
IGBT-Modules

BYM 200 B 170 DN2

eupec



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Thermische Eigenschaften / Thermal properties

			min.	typ.	max.	
Innerer Wärmewiderstand thermal resistance, junction to case	Diode/Diode, DC	R_{thJC}	-	-	0,150	K/W
Übergangs-Wärmewiderstand thermal resistance, case to heatsink	pro Modul / per module $\lambda_{paste} = 1 \text{ W/m}^2\text{K}$ / $\lambda_{grease} = 1 \text{ W/m}^2\text{K}$	R_{thCK}	-	0,012	-	K/W
Höchstzulässige Sperrschichttemperatur maximum junction temperature		$T_{vj \max}$	-	-	150	°C
Betriebstemperatur operation temperature		$T_{vj \text{ op}}$	-40	-	125	°C
Lagertemperatur storage temperature		T_{stg}	-40	-	125	°C

Mechanische Eigenschaften / Mechanical properties

Gehäuse, siehe Anlage case, see appendix					
Innere Isolation internal insulation			Al_2O_3		
Kriechstrecke creepage distance			20		mm
Luftstrecke clearance			11		mm
CTI comperative tracking index			425		
Anzugsdrehmoment f. mech. Befestigung mounting torque	Schraube / screw M6	M	3	-	6 Nm
Anzugsdrehmoment f. elektr. Anschlüsse terminal connection torque	Anschlüsse / terminals M6	M	2	-	5 Nm
Gewicht weight		G	340		g

Mit dieser technischen Information werden Halbleiterbauelemente spezifiziert, jedoch keine Eigenschaften zugesichert.
Sie gilt in Verbindung mit den zugehörigen Technischen Erläuterungen.

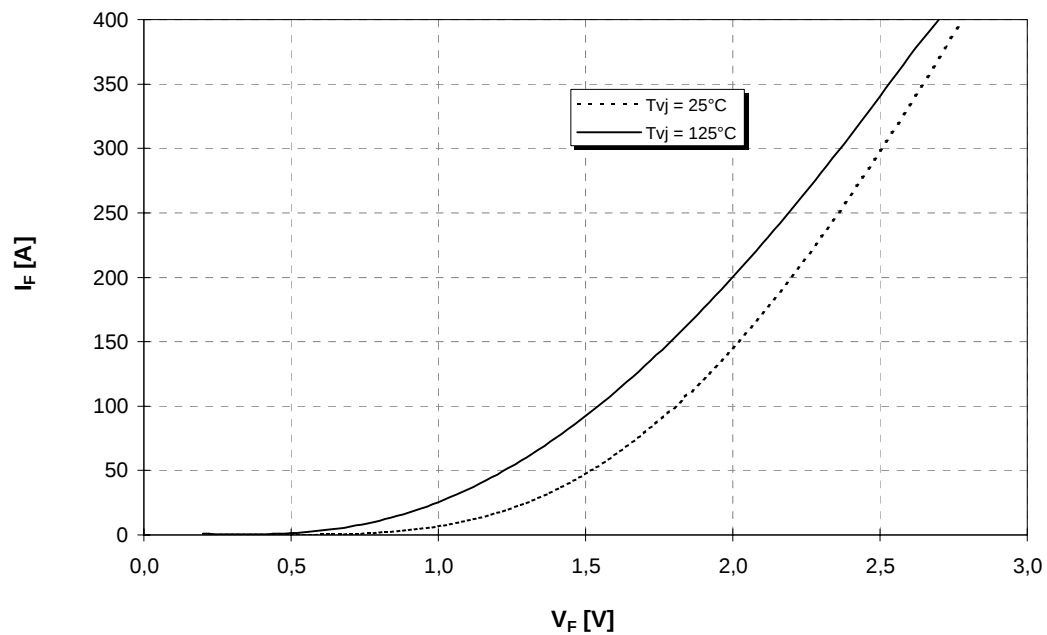
This technical information specifies semiconductor devices but promises no characteristics. It is
valid in combination with the belonging technical notes.

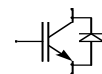


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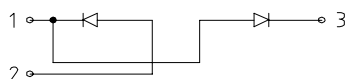
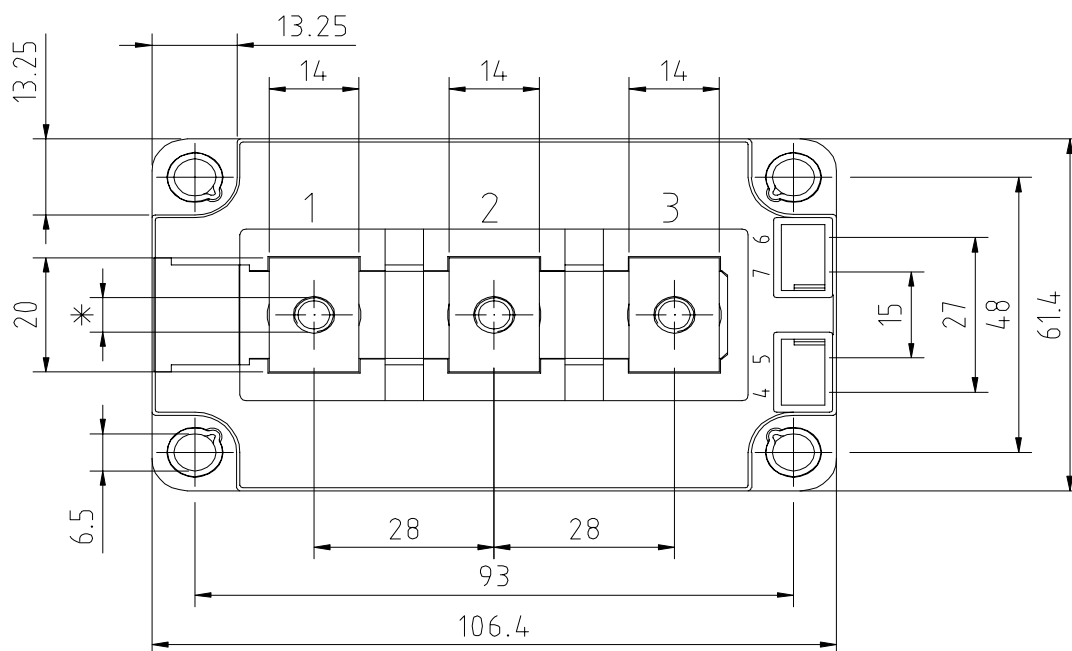
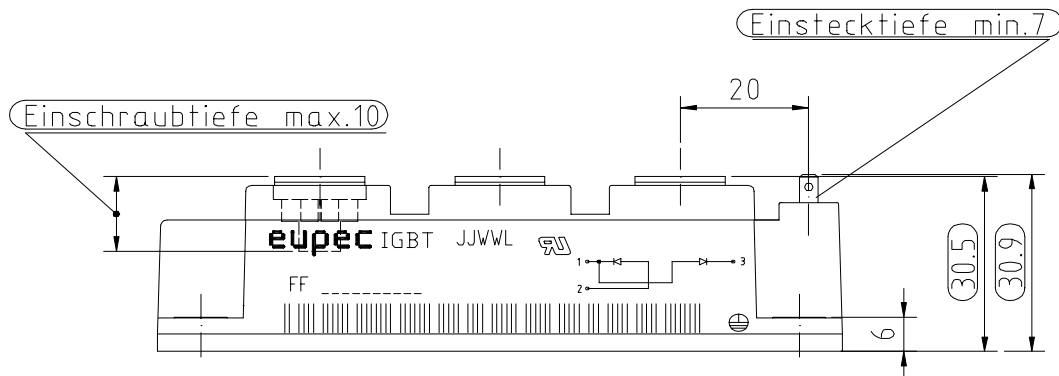
Durchlaßkennlinie der Inversdiode (typisch)
Forward characteristic of inverse diode (typical)

$$I_F = f(V_F)$$





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