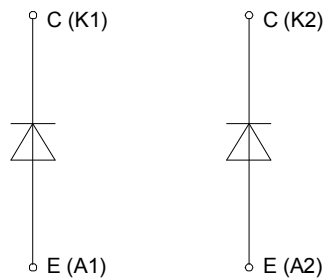
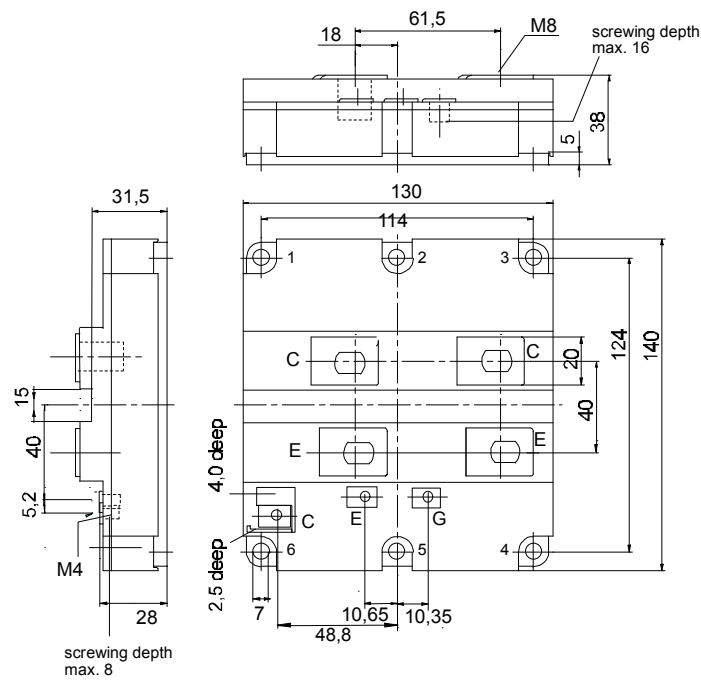




European Power-Semiconductor and Electronics Company

Marketing Information

DD 1200 S 33 K1



Elektrische Eigenschaften		Electrical properties				
Höchstzulässige Werte		Maximum rated values				
Periodische Spitzensperrspannung	repetitive peak reverse voltage	$T_{vj} = 25^{\circ}\text{C}$	V_{RRM}			3300 V
Dauergleichstrom	DC forward current		I_F			1200 A
Periodischer Spitzenstrom	repetitive peak forward current	$t_p = 1 \text{ ms}$	I_{FRM}			2400 A
Isolations-Prüfspannung	insulation test voltage	RMS, f=50 Hz, t=1 min.	V_{ISOL}			6 kV
Charakteristische Werte		Characteristic values		min.	typ.	max.
Gleichsperrspannung	continuous direct reverse voltage	$T_C = -40^{\circ}\text{C} \dots +125^{\circ}\text{C}$	$V_{R(D)}$	-	2100	- V
Durchlaßspannung	forward voltage	$t_{vj} = 25^{\circ}\text{C}, i_F = 1200 \text{ A}$	V_F	-	2,7	3,5 V
		$t_{vj} = 125^{\circ}\text{C}, i_F = 1200 \text{ A}$		-	2,8	- V
Sperrstrom	reverse current	$V_{CE} = 3300 \text{ V}, t_{vj} = 25^{\circ}\text{C}$	i_R	-	-	- mA
		$V_{CE} = 3300 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	1	- mA
Rückstromspitze	peak reverse recovery current	$i_F = 1200 \text{ A}, -di_F/dt = 4800 \text{ A}/\mu\text{s}$	I_{RM}			
		$V_{RM} = 1800 \text{ V}, t_{vj} = 25^{\circ}\text{C}$		-	950	- A
		$V_{RM} = 1800 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	1200	- A
Sperrverzögerungsladung	recovered charge	$i_F = 1200 \text{ A}, -di_F/dt = 4800 \text{ A}/\mu\text{s}$	Q_r			
		$V_{RM} = 1800 \text{ V}, t_{vj} = 25^{\circ}\text{C}$		-	750	- μAs
		$V_{RM} = 1800 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	900	- μAs
Thermische Eigenschaften		Thermal properties				
Innerer Wärmewiderstand	thermal resistance, junction to case	pro Modul/per module, DC	R_{thJC}			0,0095 $^{\circ}\text{C}/\text{W}$
		pro Zweig/per arm, DC				0,018 $^{\circ}\text{C}/\text{W}$
Übergangs-Wärmewiderstand	thermal resistance, case to heatsink	pro Modul/per module	R_{thCK}			typ. 0,008 $^{\circ}\text{C}/\text{W}$
Höchstzul.Sperrschichttemperatur	max. junction temperature		$t_{vj \text{ max}}$			150 $^{\circ}\text{C}$
Betriebstemperatur	operating temperature		$t_{c \text{ op}}$			-40...+125 $^{\circ}\text{C}$
Lagertemperatur	storage temperature		t_{stg}			-40...+125 $^{\circ}\text{C}$
Mechanische Eigenschaften		Mechanical properties				
Innere Isolation	internal insulation					AIN
Anzugsdrehmoment für mechanische Befestigung	mounting torque		M1			5 Nm
Anzugsdrehmoment für elektrische Anschlüsse	terminal connection torque	terminals M8	M2			8...10 Nm
Gewicht	weight		G			ca. 1500 g

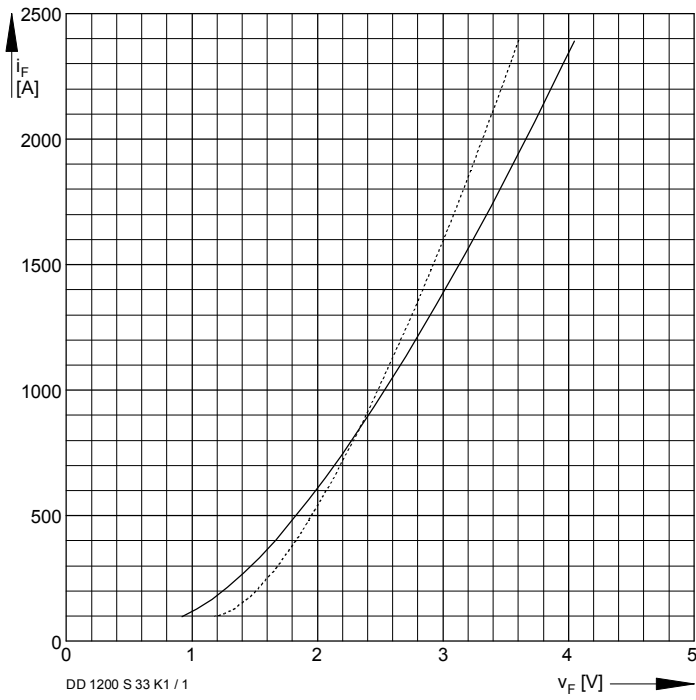


Bild / Fig. 1
 Durchlaßkennlinie pro Zweig (typisch)
 Forward characteristic per arm (typical)
 $t_j = 25^\circ\text{C}$
 ——— $t_j = 125^\circ\text{C}$

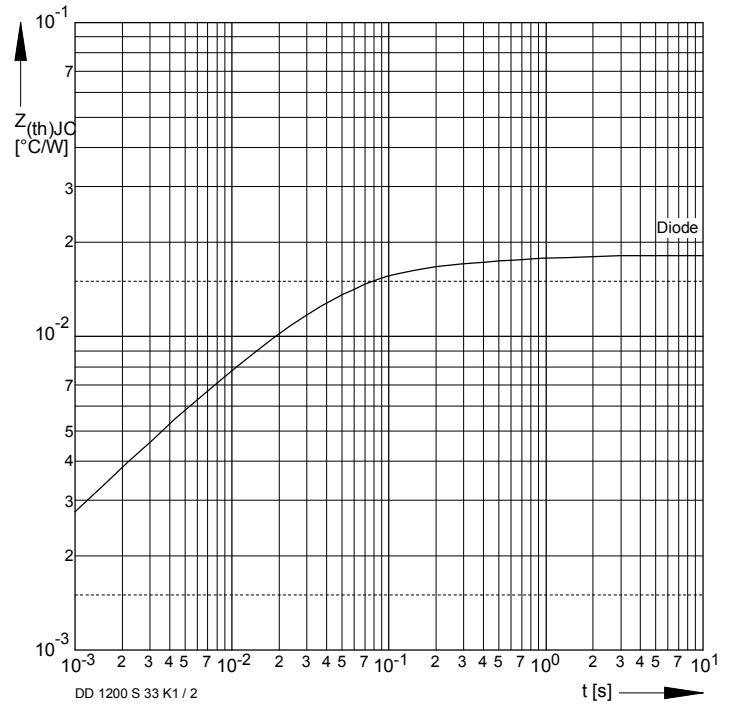


Bild / Fig. 2
 Transienter innerer Wärmewiderstand je Zweig (DC) /
 Transient thermal impedance per arm (DC)