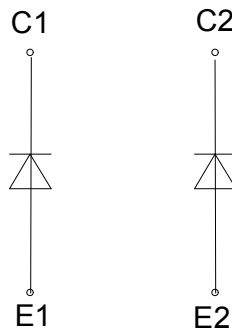
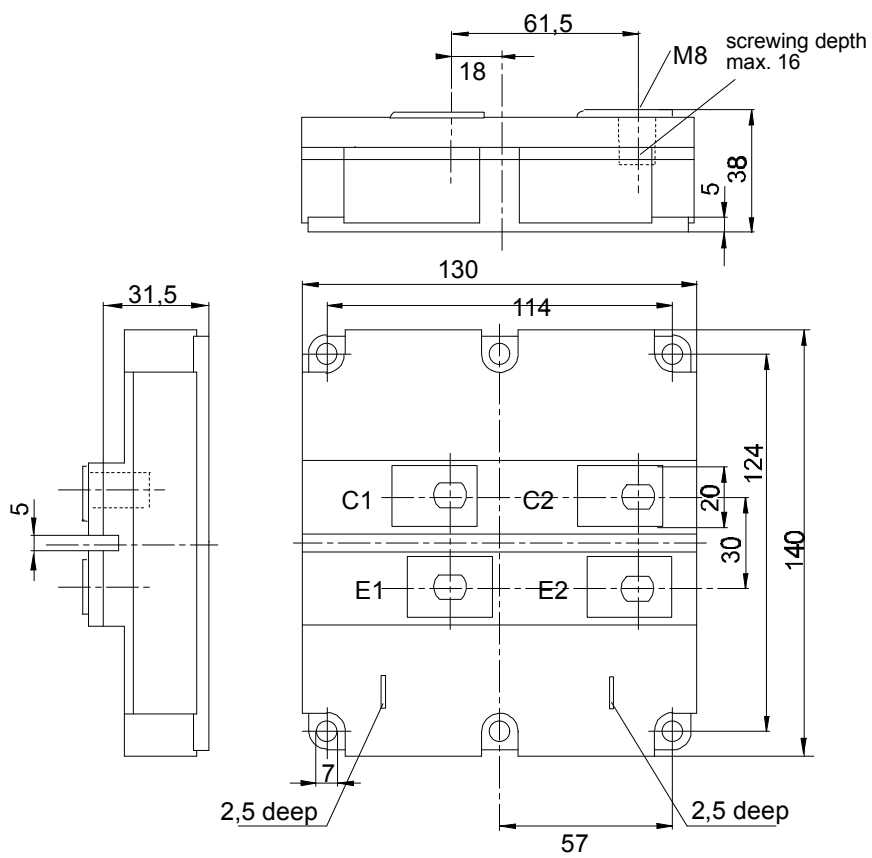




European Power-Semiconductor and Electronics Company

Marketing Information DD 400 S 16 K4



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Elektrische Eigenschaften		Electrical properties					
Höchstzulässige Werte		Maximum rated values					
Periodische Spitzensperrspannung	repetitive peak reverse voltage	$t_{vj} = 25^{\circ}\text{C}$	V_{RRM}	1600	V		
Dauergleichstrom	DC forward current		I_F	400	A		
Periodischer Spitzenstrom	repetitive peak forward current	$t_p = 1 \text{ ms}$	I_{FRM}	800	A		
Isolations-Prüfspannung	insulation test voltage	RMS, f=50 Hz, t=1 min.	V_{ISOL}	3,4	kV		
Charakteristische Werte		Characteristic values		min.	typ.	max.	
Durchlaßspannung	forward voltage	$t_{vj} = 25^{\circ}\text{C}, i_F = 400 \text{ A}$	V_F	-	2,4	2,8	V
		$t_{vj} = 125^{\circ}\text{C}, i_F = 400 \text{ A}$		-	2,2	-	V
Sperrstrom	reverse current	$V_{CE} = 1200 \text{ V}, t_{vj} = 25^{\circ}\text{C}$	i_R	-	4	-	mA
		$V_{CE} = 1200 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	15	-	mA
Rückstromspitze	peak reverse recovery current	$i_F=400 \text{ A}, -di_F/dt=400 \text{ A}/\mu\text{s}$	I_{RM}				
		$V_{RM} = 900\text{V}, t_{vj} = 25^{\circ}\text{C}$		-	35	-	A
		$V_{RM} = 900\text{V}, t_{vj} = 125^{\circ}\text{C}$		-	65	-	A
Sperrverzögerungsladung	recovered charge	$i_F=400 \text{ A}, -di_F/dt=400 \text{ A}/\mu\text{s}$	Q_f				
		$V_{RM} = 900\text{V}, t_{vj} = 25^{\circ}\text{C}$		-	10	-	μAs
		$V_{RM} = 900\text{V}, t_{vj} = 125^{\circ}\text{C}$		-	40	-	μAs
Thermische Eigenschaften		Thermal properties					
Innerer Wärmewiderstand	thermal resistance, junction to case	pro Modul/per module, DC	R_{thJC}		0,05	$^{\circ}\text{C}/\text{W}$	
		pro Zweig/per arm, DC			0,10	$^{\circ}\text{C}/\text{W}$	
Übergangs-Wärmewiderstand	thermal resistance, case to heatsink	pro Modul/per module	R_{thCK}		typ. 0,01	$^{\circ}\text{C}/\text{W}$	
		pro Zweig/per arm			typ. 0,02	$^{\circ}\text{C}/\text{W}$	
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				Al_2O_3		
Anzugsdrehmoment für mechanische Befestigung	mounting torque		M1		3	Nm	
Anzugsdrehmoment für elektrische Anschlüsse	terminal connection torque	terminals M8	M2		8...10	Nm	
Gewicht	weight		G		ca. 1500	g	

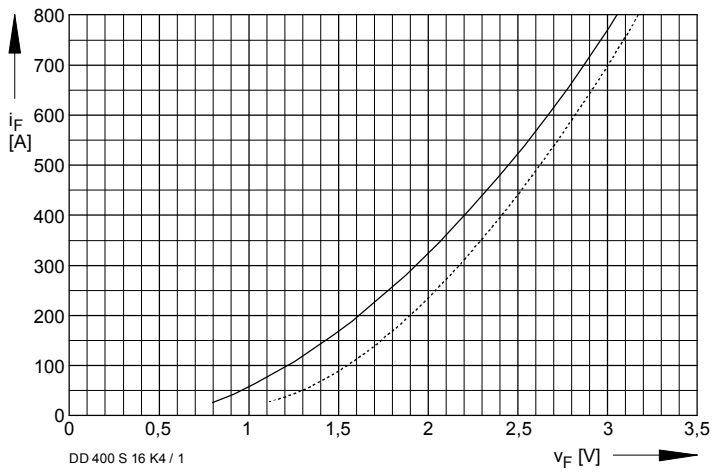


Bild / Fig. 1
 Durchlaßkennlinie pro Zweig (typisch)
 Forward characteristic per arm (typical)
 ----- $t_{vj} = 25\text{ °C}$
 ————— $t_{vj} = 125\text{ °C}$

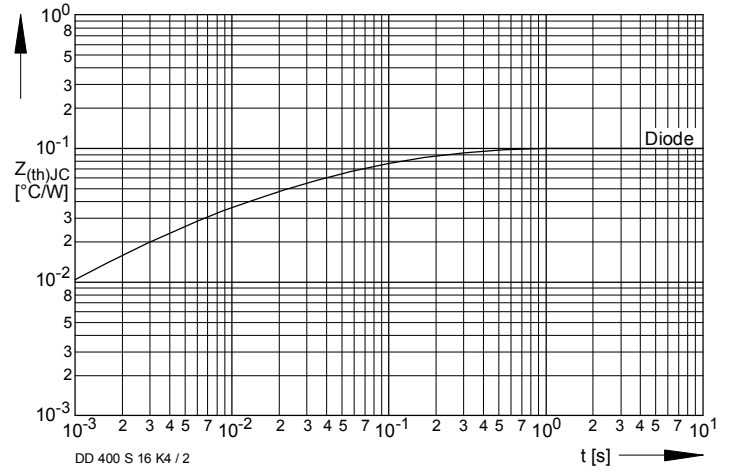


Bild / Fig. 2
 Transienter innerer Wärmewiderstand pro Zweig (DC)
 Transient thermal impedance per arm (DC)

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