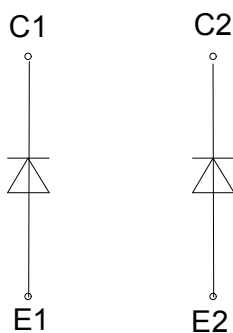
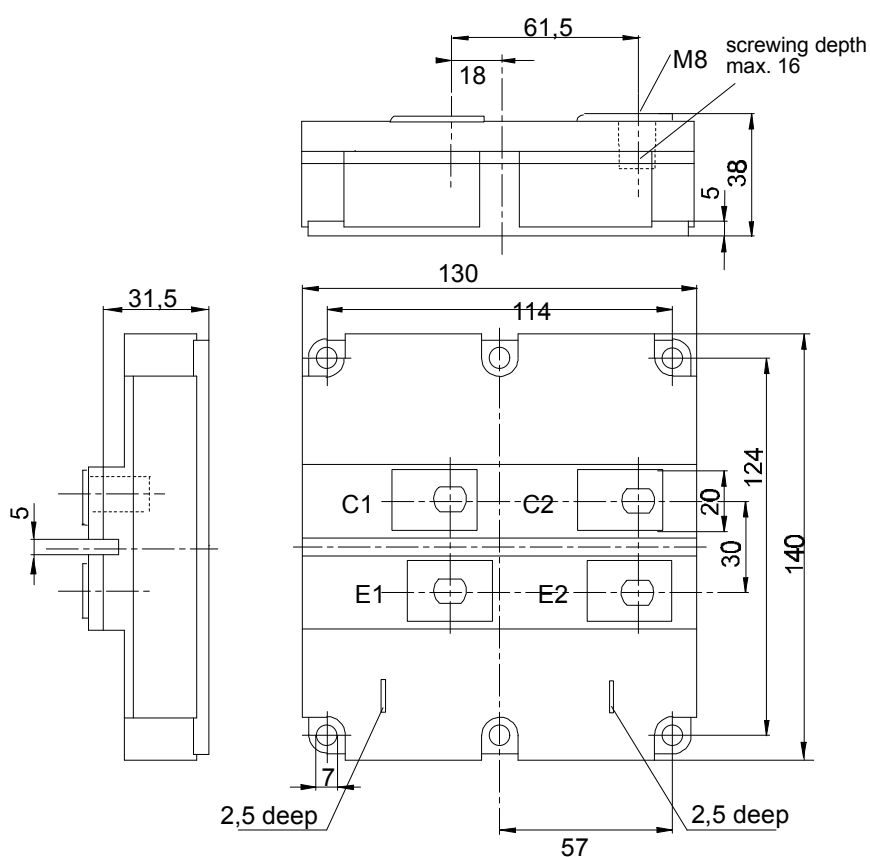




European Power-Semiconductor and Electronics Company

Marketing Information

DD 600 S 16 K4



DD 600 S 16 K4

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	600	A
Periodischer Spitzenstrom	repetitive peak forward current	$t_p = 1 \text{ ms}$	I_{FRM}	1200	A
Isolations-Prüfspannung	insulation test voltage	RMS, f=50 Hz, t=1 min.	V_{ISOL}	3	kV

Charakteristische Werte

Characteristic values

				min.	typ.	max.	
Durchlaßspannung	forward voltage	$t_{vj} = 25^{\circ}\text{C}, i_F = 600 \text{ A}$	v_F	-	2,4	2,8	V
		$t_{vj} = 125^{\circ}\text{C}, i_F = 600 \text{ A}$		-	2,2	-	V
Sperrstrom	reverse current	$v_{CE} = 1600 \text{ V}, t_{vj} = 25^{\circ}\text{C}$	i_R	-	4	-	mA
		$v_{CE} = 1600 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	40	-	mA
Rückstromspitze	peak reverse recovery current	$i_F=600 \text{ A}, -di_F/dt=600 \text{ A}/\mu\text{s}$	I_{RM}				
		$v_{RM} = 900 \text{ V}, t_{vj} = 25^{\circ}\text{C}$		-	50	-	A
		$v_{RM} = 900 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	100	-	A
Sperrverzögerungsladung	recovered charge	$i_F=600 \text{ A}, -di_F/dt=600 \text{ A}/\mu\text{s}$	Q_r				
		$v_{RM} = 900 \text{ V}, t_{vj} = 25^{\circ}\text{C}$		-	15	-	μAs
		$v_{RM} = 900 \text{ V}, t_{vj} = 125^{\circ}\text{C}$		-	60	-	μAs

Thermische Eigenschaften

Thermal properties

Innerer Wärmewiderstand	thermal resistance, junction to case	pro Modul/per module, DC	R_{thJC}	0,04	$^{\circ}\text{C}/\text{W}$
		pro Zweig/per arm, DC		0,08	$^{\circ}\text{C}/\text{W}$
Übergangs-Wärmewiderstand	thermal resistance, case to heatsink	pro Modul/per module	R_{thCK}	typ. 0,008	$^{\circ}\text{C}/\text{W}$
		pro Zweig/per arm		typ. 0,016	$^{\circ}\text{C}/\text{W}$
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

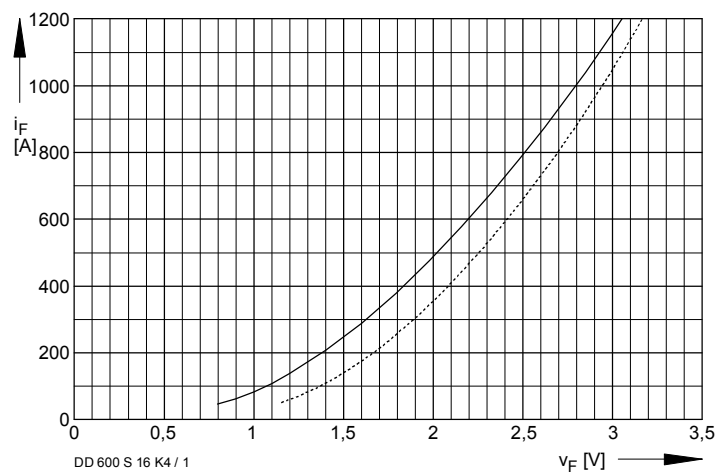


Bild / Fig. 1
 Durchlaßkennlinie pro Zweig (typisch)
 Forward characteristic per arm (typical)
 ----- $t_{vj} = 25^\circ\text{C}$
 ————— $t_{vj} = 125^\circ\text{C}$

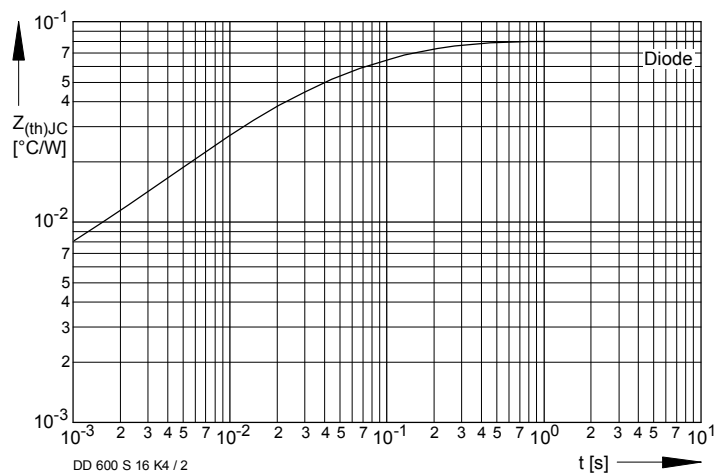


Bild / Fig. 2
 Transienter innerer Wärmewiderstand (DC)
 Transient thermal impedance (DC)