

Transistor		Transistor	
Elektrische Eigenschaften		Electrical properties	
<u>Höchstzulässige Werte</u>		<u>Maximum rated values</u>	
V <sub>CEs</sub>		1200	V
I <sub>C</sub>		8	A
I <sub>CRM</sub>	t <sub>p</sub> = 1 ms	16	A
P <sub>tot</sub>	t <sub>C</sub> = 25°C	80	W
V <sub>GE</sub>		20	V
V <sub>EG</sub>		20	V

Charakteristische Werte		Characteristic values	
V <sub>CE sat</sub>	i <sub>CM</sub> = 8 A, V <sub>GE</sub> = 15 V, t <sub>vj</sub> = 25°C	typ. 3	V
	i <sub>CM</sub> = 8 A, V <sub>GE</sub> = 15 V, t <sub>vj</sub> = 25°C	max. 4	V
V <sub>GE (th)</sub>	V <sub>CE</sub> = 5 V, i <sub>C</sub> = 8 mA, t <sub>vj</sub> = 25°C	min. 3	V
	V <sub>CE</sub> = 5 V, i <sub>C</sub> = 8 mA, t <sub>vj</sub> = 25°C	max. 6	V
C <sub>ies</sub>	V <sub>CE</sub> = 10 V, V <sub>GE</sub> = 0 V, f <sub>o</sub> = 1 MHz, t <sub>vj</sub> = 25°C	typ. 1,2	nF
i <sub>CEs</sub>	V <sub>CE</sub> = 1200 V, V <sub>GE</sub> = 0 V, t <sub>vj</sub> = 25°C	typ. 0,1	mA
	V <sub>CE</sub> = 1200 V, V <sub>GE</sub> = 0 V, t <sub>vj</sub> = 125°C	typ. 0,5	mA
i <sub>GES</sub>	V <sub>GE</sub> = 20 V, t <sub>vj</sub> = 25°C	typ. 50	nA
	V <sub>GE</sub> = 20 V, t <sub>vj</sub> = 25°C	max. 500	nA
i <sub>EGs</sub>	V <sub>EG</sub> = 20 V, t <sub>vj</sub> = 25°C	typ. 50	nA
	V <sub>EG</sub> = 20 V, t <sub>vj</sub> = 25°C	max. 500	nA
t <sub>on</sub>	i <sub>CM</sub> = 8 A, V <sub>CE</sub> = 600 V, V <sub>LF</sub> = 15 V, R <sub>G</sub> = 150 Ω, t <sub>vj</sub> = 25°C	typ. 0,4	μs
	i <sub>CM</sub> = 8 A, V <sub>CE</sub> = 600 V, V <sub>LF</sub> = 15 V, R <sub>G</sub> = 150 Ω, t <sub>vj</sub> = 125°C	typ. 0,5	μs
t <sub>s</sub>	i <sub>CM</sub> = 8 A, V <sub>CE</sub> = 600 V, V <sub>LF</sub> = 15 V, V <sub>LR</sub> = 15 V, R <sub>G</sub> = 150 Ω, t <sub>vj</sub> = 25°C	typ. 0,4	μs
	i <sub>CM</sub> = 8 A, V <sub>CE</sub> = 600 V, V <sub>LF</sub> = 15 V, V <sub>LR</sub> = 15 V, R <sub>G</sub> = 150 Ω, t <sub>vj</sub> = 125°C	typ. 0,6	μs
t <sub>f</sub>	i <sub>CM</sub> = 8 A, V <sub>CE</sub> = 600 V, V <sub>LF</sub> = 15 V, V <sub>LR</sub> = 15 V, R <sub>G</sub> = 150 Ω, t <sub>vj</sub> = 25°C	typ. 0,2	μs
	i <sub>CM</sub> = 8 A, V <sub>CE</sub> = 600 V, V <sub>LF</sub> = 15 V, V <sub>LR</sub> = 15 V, R <sub>G</sub> = 150 Ω, t <sub>vj</sub> = 125°C	typ. 0,25	μs

<u>Bedingungen für den Kurzschlußschutz</u>	<u>Conditions for protection against short circuits</u>
t <sub>ig</sub> = 10 μs,	V <sub>CC</sub> = 750 V,
V <sub>LF</sub> = V <sub>LR</sub> = 15 V,	V <sub>CEM</sub> = 1000 V,
R <sub>G</sub> = 150 Ω,	i <sub>CMK 1</sub> ≈ 85 A,
t <sub>vj</sub> = 125°C,	i <sub>CMK 2</sub> ≈ 60 A,

Thermische Eigenschaften		Thermal properties	
R <sub>thJC</sub>	DC, pro Baustein / per module	0,26	°C/W
	DC, pro Zweig / per arm	1,56	°C/W

t <sub>vj max</sub>	150 °C
t <sub>vj op</sub>	- 40 / + 150 °C
t <sub>stg</sub>	- 40 / + 125 °C

Inversdiode	Inverse diode
Elektrische Eigenschaften	Electrical properties

<u>Höchstzulässige Werte</u>	<u>Maximum rated values</u>
I <sub>F(max)</sub>	8 A
I <sub>FRM</sub>	16 A
t <sub>p</sub> = 1 ms	

Charakteristische Werte		Characteristic values	
V <sub>F</sub>	i <sub>F</sub> = 8 A, V <sub>GE</sub> = 0 V, t <sub>vj</sub> = 25°C	typ. 1,6	V
	i <sub>F</sub> = 8 A, V <sub>GE</sub> = 0 V, t <sub>vj</sub> = 25°C	max. 2,5	V
I <sub>RM</sub>	i <sub>FM</sub> = 8 A, -di <sub>F</sub> /dt = 50 A/μs		
	V <sub>EG</sub> = 10 V, t <sub>vj</sub> = 25°C	typ. 4,5	A
	i <sub>FM</sub> = 8 A, -di <sub>F</sub> /dt = 50 A/μs		
	V <sub>EG</sub> = 10 V, t <sub>vj</sub> = 125°C	typ. 8	A
Q <sub>r</sub>	i <sub>FM</sub> = 8 A, -di <sub>F</sub> /dt = 50 A/μs		
	V <sub>EG</sub> = 10 V, t <sub>vj</sub> = 25°C	typ. 0,5	μAs
	i <sub>FM</sub> = 8 A, -di <sub>F</sub> /dt = 50 A/μs		
	V <sub>EG</sub> = 10 V, t <sub>vj</sub> = 125°C	typ. 1,4	μAs

Thermische Eigenschaften		Thermal properties	
R <sub>thJC</sub>	DC, pro Baustein / per module	0,3	°C/W
	DC, pro Zweig / per arm	1,8	°C/W

t <sub>vj max</sub>	125 °C
t <sub>vj op</sub>	- 40 / + 125 °C
t <sub>stg</sub>	- 40 / + 125 °C

Innere Isolation	Internal insulation
Isoliermaterial: Al N	Insulating material: Al N
V <sub>ISOL</sub> RMS (f=50 Hz, t=1 min)	2,5 kV

Mechanische Eigenschaften	Mechanical properties
G	225 g
M 1	3 Nm

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