

Elektrische Eigenschaften

Electrical properties

Höchstzulässige Werte

Maximum rated values

V_{CES}		500	V
V_{ECS}		5	V
I_C		75	A
I_{CRM}	$t_p = 1 \text{ ms}$	150	A
P_{tot}	$t_C = 25^\circ\text{C}$	200	W
V_{GE}		20	V
V_{EG}		20	V

Charakteristische Werte

Characteristic values

$V_{CE \text{ sat}}$	$I_{CM} = 75 \text{ A},$ $i_{CM} = 75 \text{ A},$	$V_{GE} = 15 \text{ V},$ $V_{GE} = 15 \text{ V},$	$t_{vj} = 25^\circ\text{C}$ typ. 3 V $t_{vj} = 25^\circ\text{C}$ max. 5 V
$V_{GE (th)}$	$V_{CE} = 5 \text{ V},$ $V_{CE} = 5 \text{ V},$	$i_C = 75 \text{ mA},$ $i_C = 75 \text{ mA},$	$t_{vj} = 25^\circ\text{C}$ min. 3 V $t_{vj} = 25^\circ\text{C}$ max. 6 V
C_{GE}	$V_{CE} = 10 \text{ V},$ $f_o = 1 \text{ MHz},$	$V_{GE} = 0 \text{ V},$ $t_{vj} = 25^\circ\text{C}$	typ. 5,6 nF
i_{CES}	$V_{CE} = 500 \text{ V},$ $V_{CE} = 500 \text{ V},$	$V_{GE} = 0 \text{ V},$ $V_{GE} = 0 \text{ V},$	$t_{vj} = 25^\circ\text{C}$ typ. 0,3 mA $t_{vj} = 125^\circ\text{C}$ typ. 2 mA
i_{GES}	$V_{GE} = 20 \text{ V},$ $V_{GE} = 20 \text{ V},$	$t_{vj} = 25^\circ\text{C}$ $t_{vj} = 25^\circ\text{C}$	typ. 50 nA max. 500 nA
i_{EGS}	$V_{EG} = 20 \text{ V},$ $V_{EG} = 20 \text{ V},$	$t_{vj} = 25^\circ\text{C}$ $t_{vj} = 25^\circ\text{C}$	typ. 50 nA max. 500 nA
t_{on}	$i_{CM} = 75 \text{ A},$ $V_{LF} = 15 \text{ V},$ $i_{CM} = 75 \text{ A},$ $V_{LF} = 15 \text{ V},$	$V_{CE} = 300 \text{ V},$ $R_G = 33 \Omega,$ $V_{CE} = 300 \text{ V},$ $R_G = 33 \Omega,$	$t_{vj} = 25^\circ\text{C}$ typ. 0,5 μs $t_{vj} = 125^\circ\text{C}$ typ. 0,6 μs
t_s	$i_{CM} = 75 \text{ A},$ $V_{LF} = 15 \text{ V},$ $R_G = 33 \Omega,$ $i_{CM} = 75 \text{ A},$ $V_{LF} = 15 \text{ V},$	$V_{CE} = 300 \text{ V},$ $V_{LR} = 15 \text{ V},$ $t_{vj} = 25^\circ\text{C}$ $V_{CE} = 300 \text{ V},$ $V_{LR} = 15 \text{ V},$	typ. 0,5 μs typ. 0,6 μs
t_f	$i_{CM} = 75 \text{ A},$ $V_{LF} = 15 \text{ V},$ $R_G = 33 \Omega,$ $i_{CM} = 75 \text{ A},$ $V_{LF} = 15 \text{ V},$	$V_{CE} = 300 \text{ V},$ $V_{LR} = 15 \text{ V},$ $t_{vj} = 25^\circ\text{C}$ $V_{CE} = 300 \text{ V},$ $V_{LR} = 15 \text{ V},$	typ. 0,3 μs typ. 0,4 μs

Bedingungen für den Kurzschlußschutz

$t_{fg} = 10 \mu\text{s},$
 $V_{LF} = V_{LR} = 15 \text{ V},$
 $R_G = 33 \Omega,$
 $t_{vj} = 125^\circ\text{C},$

Conditions for protection against short circuits

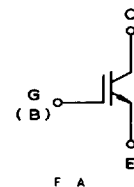
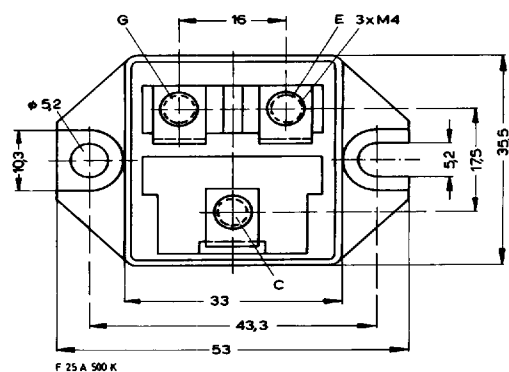
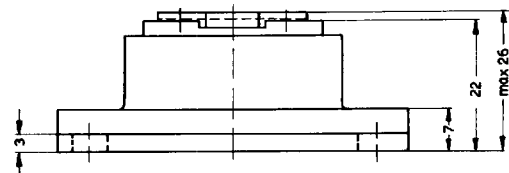
$V_{CC} = 350 \text{ V},$
 $V_{CEM} = 425 \text{ V},$
 $i_{CMK1} \approx 600 \text{ A},$
 $i_{CMK2} \approx 300 \text{ A}$

Thermische Eigenschaften

Thermal properties

 R_{thJC}

DC

0,625 $^\circ\text{C/W}$ t_{vjmax} 150 $^\circ\text{C}$ t_{vjop} -40 / + 150 $^\circ\text{C}$ t_{stg} -40 / + 125 $^\circ\text{C}$ 

Innere Isolation

Isoliermaterial: AlN
 VISOL RMS

Internal insulation

Insulating material: AlN
 2,5 kV

Mechanische Eigenschaften

Mechanical properties

G	86	g
M1	3	Nm
M2	2	Nm