

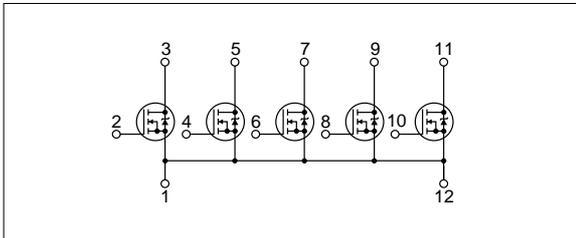
Absolute maximum ratings

($T_a=25^\circ\text{C}$)

Symbol	Ratings	Unit
V_{DSS}	200	V
V_{GSS}	± 20	V
I_D	± 7	A
$I_D(\text{pulse})$	± 15 ($PW \leq 100\mu\text{s}$, $\text{duty} \leq 1\%$)	A
E_{AS}^*	55	mJ
I_{AS}^*	7	A
P_T	5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)	W
	35 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink)	
θ_{j-a}	25 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
θ_{j-c}	3.57 (Junction-Case, $T_c=25^\circ\text{C}$, with all circuits operating)	$^\circ\text{C/W}$
V_{ISO}	1000 (Between fin and lead pin, AC)	V _{rms}
T_{ch}	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

* : $V_{DD}=25\text{V}$, $L=2\text{mH}$, $I_D=7\text{A}$, unclamped, $R_G=50\Omega$, see Fig. E on page 15.

Equivalent circuit diagram



Characteristic curves

Electrical characteristics

($T_a=25^\circ\text{C}$)

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	200			V	$I_D=100\mu\text{A}$, $V_{GS}=0\text{V}$
I_{GSS}			± 100	nA	$V_{GS}=\pm 20\text{V}$
I_{DSS}			100	μA	$V_{DS}=200\text{V}$, $V_{GS}=0\text{V}$
V_{TH}	1.0		2.0	V	$V_{DS}=10\text{V}$, $I_D=250\mu\text{A}$
$R_{\theta(j-fs)}$	4	7		S	$V_{DS}=10\text{V}$, $I_D=3.5\text{A}$
		280	350	$\text{m}\Omega$	$V_{GS}=10\text{V}$, $I_D=3.5\text{A}$
$R_{DS(ON)}$		320	480	$\text{m}\Omega$	$V_{GS}=4\text{V}$, $I_D=3.5\text{A}$
	C_{iss}	420		pF	$V_{DS}=10\text{V}$, $f=1.0\text{MHz}$, $V_{GS}=0\text{V}$
C_{oss}		210		pF	
C_{rss}		90		pF	
$t_{d(on)}$		16		ns	$I_D=3.5\text{A}$, $V_{DD} \approx 100\text{V}$, $R_L=28.6\Omega$, $V_{GS}=5\text{V}$, see Fig. 3 on page 16.
t_r		60		ns	
$t_{d(off)}$		100		ns	
t_f		70		ns	
V_{SD}		1.0	1.5	V	$I_{SD}=7\text{A}$, $V_{GS}=0\text{V}$