

Absolute maximum ratings

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

Symbol	Ratings	Unit
V_{DSS}	150	V
V_{GSS}	+20, -10	V
I_D	$\pm 7A$	A
I_D (pulse)	± 15 ($PW \leq 1ms, Du \leq 1\%$)	A
E_{AS}^*	100	mJ
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)	W
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	$^\circ\text{C}$

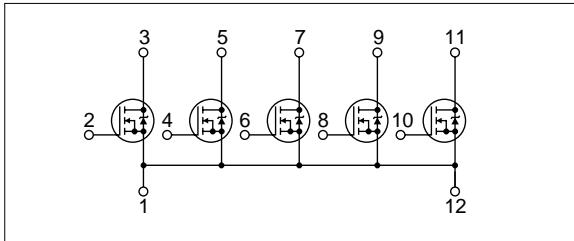
* : $V_{DD}=25V, L=3.4mH, I_D=7A$, unclamped, $R_G=50\Omega$, see Fig. E on page 15.

Electrical characteristics

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

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	150			V	$I_D=100\mu A, V_{GS}=0V$
I_{GSS}			100	nA	$V_{GS}=20V$
I_{DSS}			100	μA	$V_{DS}=150V, V_{GS}=0V$
V_{TH}	1.0		2.0	V	$V_{DS}=10V, I_D=250\mu A$
$Re(yfs)$	4	9		S	$V_{DS}=10V, I_D=3.5A$
$R_{DS(ON)}$		150	200	$m\Omega$	$V_{GS}=10V, I_D=3.5A$
		170	230	$m\Omega$	$V_{GS}=4V, I_D=3.5A$
C_{iss}		870		pF	$V_{DS}=10V,$ $f=1.0MHz,$ $V_{GS}=0V$
C_{oss}		320		pF	
C_{rss}		210		pF	
$td(on)$		25		ns	$I_D=3.5A,$ $V_{DD} \approx 70V,$ $R_L=20\Omega,$ $V_{GS}=5V$, see Fig. 3 in page 16.
tr		55		ns	
$td(off)$		80		ns	
tf		50		ns	
V_{SD}		1.0	1.5	V	$I_{SD}=7A, V_{GS}=0V$
t_{rr}		500		ns	$I_{SD}=\pm 100mA$

Equivalent circuit diagram



Characteristic curves

