

Absolute maximum ratings

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

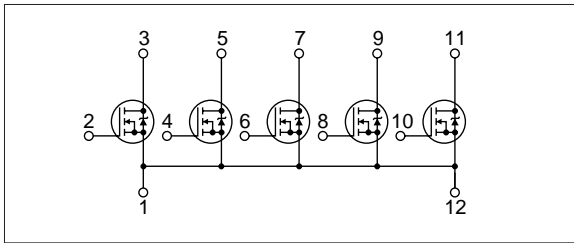
Symbol	Ratings	Unit
V_{DSS}	150	V
V_{GSS}	+20, -10	V
I_D	$\pm 7\text{A}$	
I_D (pulse)	± 15 ($PV \leq 1\text{ms}$, duty $\leq 1\%$)	A
E_{AS}^*	100	mJ
P_T	5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)	W
	35 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite 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)	Vrms
T_{ch}	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

* : $V_{DD}=25\text{V}$, $L=3.4\text{mH}$, $I_D=7\text{A}$, unclamped, $R_G=50\Omega$

Electrical characteristics

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

Equivalent circuit diagram



Characteristic curves

