

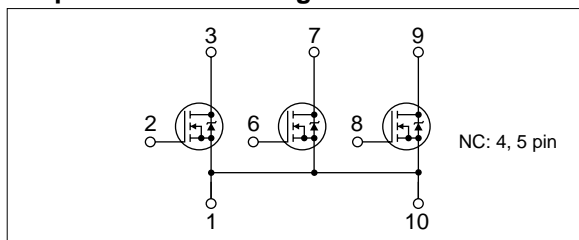
Absolute maximum ratings

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

Symbol	Ratings	Unit
V_{DSS}	200	V
V_{GSS}	± 20	V
I_D	± 7	A
$I_{D(pulse)}$	± 15 ($PW \leq 100\mu\text{s}$, $duty \leq 1\%$)	A
E_{AS}^*	55	mJ
I_{AS}	7	A
P_T	3.5 ($T_a=25^\circ\text{C}$ with all circuits operating, without heatsink)	W
	15 ($T_a=25^\circ\text{C}$ with all circuits operating, with infinite heatsink)	W
T_{ch}	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

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

Equivalent circuit diagram



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	$V_{DS}=10\text{V}$, $I_D=250\mu\text{A}$
$R_{e(yfs)}$	4.0	7.0		S	$V_{DS}=10\text{V}$, $I_D=3.5\text{A}$
$R_{DS(ON)}$		280	350	$\text{m}\Omega$	$I_D=3.5\text{A}$, $V_{GS}=10\text{V}$
		320	480	$\text{m}\Omega$	$I_D=3.5\text{A}$, $V_{GS}=4\text{V}$
C_{iss}		420		pF	$V_{DS}=10\text{V}$
C_{oss}		210		pF	$V_{GS}=0\text{V}$
C_{rss}		90		pF	$f=1.0\text{MHz}$
$t_{d(on)}$		16		ns	$I_D=3.5\text{A}$, $V_{DD} \neq 100\text{V}$,
t_r		60		ns	$R_L=28.6\Omega$,
$t_{d(off)}$		100		ns	$V_{GS}=5\text{V}$, $R_G=25\Omega$,
t_f		70		ns	see Fig. 3 on page 16.
V_{SD}	1.0	1.5		V	$V_{SD}=7\text{A}$, $V_{GS}=0\text{V}$

Characteristic curves