

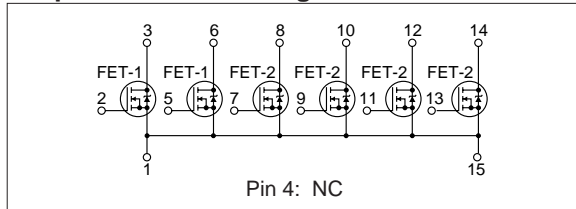
Absolute maximum ratings

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

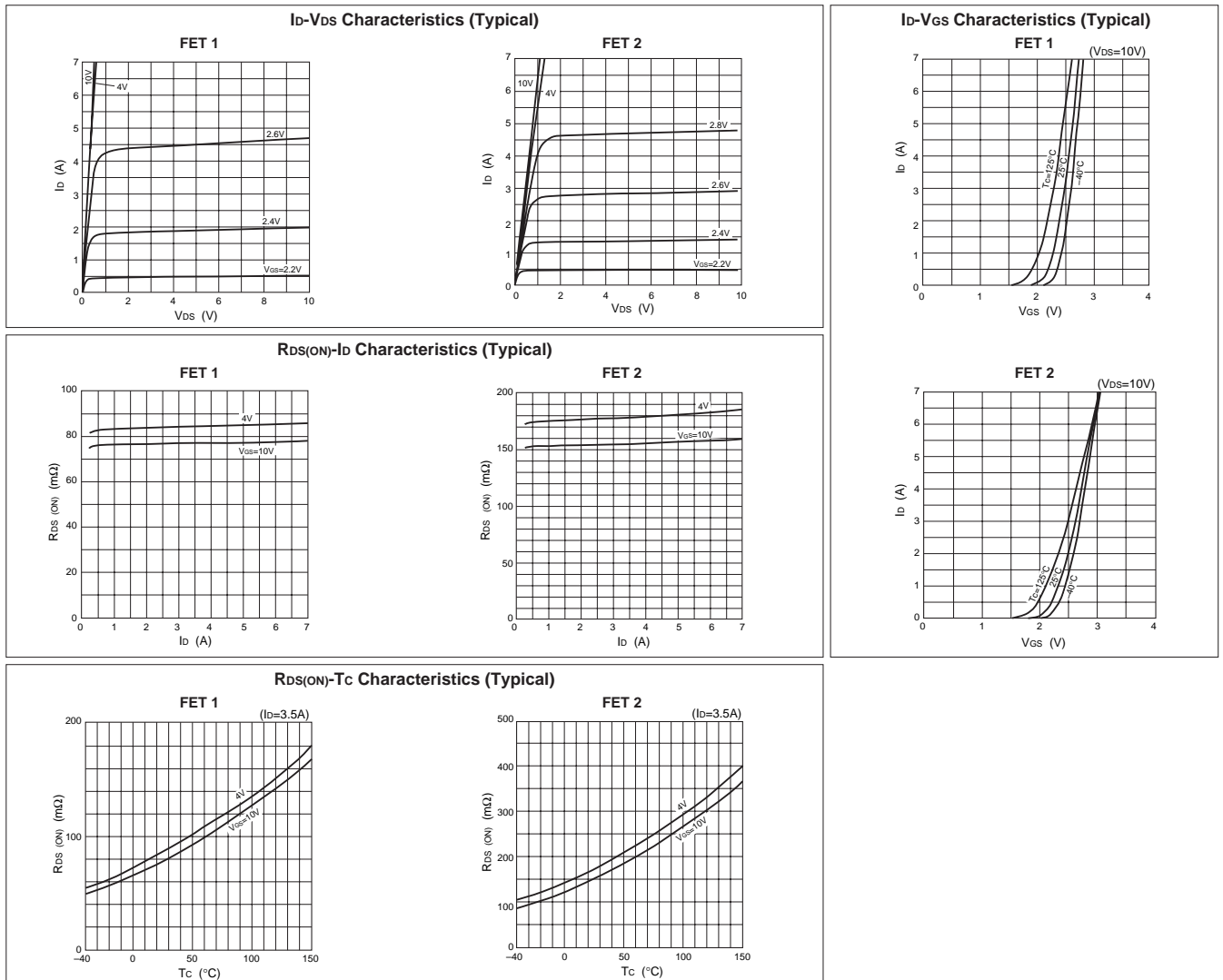
Symbol	Ratings		Unit
	FET 1	FET 2	
V_{DSS}	150		V
V_{GSS}	+20, -10		V
I_D	± 7		A
$I_{D(pulse)}$	± 15 ($PW \leq 100\mu s$, $duty \leq 1\%$)		A
E_{AS}^*	100		A
P_T	5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)		W
	60 ($T_c=25^\circ\text{C}$, with all circuits operating, with 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}	2.08 (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		$^\circ\text{C}$

* $V_{DD}=25\text{V}$, $L=3.4\text{mH}$, $I_D=7\text{A}$, 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	FET 1					FET 2				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
$V_{(BR)DSS}$	150			V	$I_D=100\mu\text{A}$, $V_{GS}=0\text{V}$	150			V	$I_D=100\mu\text{A}$, $V_{GS}=0\text{V}$
I_{GSS}			± 100	nA	$V_{GS}=20\text{V}$, -10V			± 100	nA	$V_{GS}=20\text{V}$, -10V
I_{DSS}			100	μA	$V_{DS}=150\text{V}$, $V_{GS}=0\text{V}$			100	μA	$V_{DS}=150\text{V}$, $V_{GS}=0\text{V}$
V_{TH}	1.0		2.0	V	$V_{DS}=10\text{V}$, $I_D=250\mu\text{A}$	1.0		2.0	V	$V_{DS}=10\text{V}$, $I_D=250\mu\text{A}$
$R_{e(yfs)}$	7	12		S	$V_{DS}=10\text{V}$, $I_D=3.5\text{A}$	4	9		S	$V_{DS}=10\text{V}$, $I_D=3.5\text{A}$
$R_{DS(ON)}$		80	105	$\text{m}\Omega$	$V_{GS}=10\text{V}$, $I_D=3.5\text{A}$		150	200	$\text{m}\Omega$	$V_{GS}=10\text{V}$, $I_D=3.5\text{A}$
		85	115	$\text{m}\Omega$	$V_{GS}=4\text{V}$, $I_D=3.5\text{A}$		170	230	$\text{m}\Omega$	$V_{GS}=4\text{V}$, $I_D=3.5\text{A}$
C_{iss}		1600		pF	$V_{DS}=10\text{V}$		870		pF	$V_{DS}=10\text{V}$
C_{oss}		380		pF	$f=1.0\text{MHz}$		320		pF	$f=1.0\text{MHz}$
C_{rss}		90		pF	$V_{GS}=0\text{V}$		210		pF	$V_{GS}=0\text{V}$
$t_{d(on)}$		35		ns	$I_D=3.5\text{A}$		25		ns	$I_D=3.5\text{A}$
t_r		70		ns	$V_{DD} \approx 70\text{V}$		55		ns	$V_{DD} \approx 70\text{V}$
$t_{d(off)}$		125		ns	$R_L=20\Omega$		80		ns	$R_L=20\Omega$
t_f		90		ns	$V_{GS}=5\text{V}$		50		ns	$V_{GS}=5\text{V}$
V_{SD}		1.0	1.5	V	$I_{SD}=7\text{A}$, $V_{GS}=0\text{V}$		1.0	1.5	V	$I_{SD}=7\text{A}$, $V_{GS}=0\text{V}$
t_{rr}		320		ns	$I_F=\pm 100\text{mA}$		500		ns	$I_F=\pm 100\text{mA}$

Characteristic curves

