

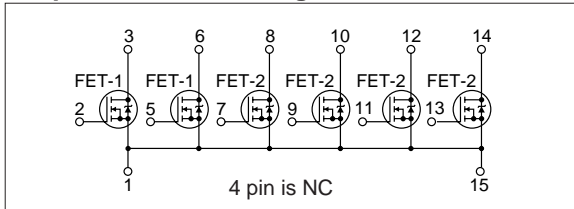
## Absolute maximum ratings

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

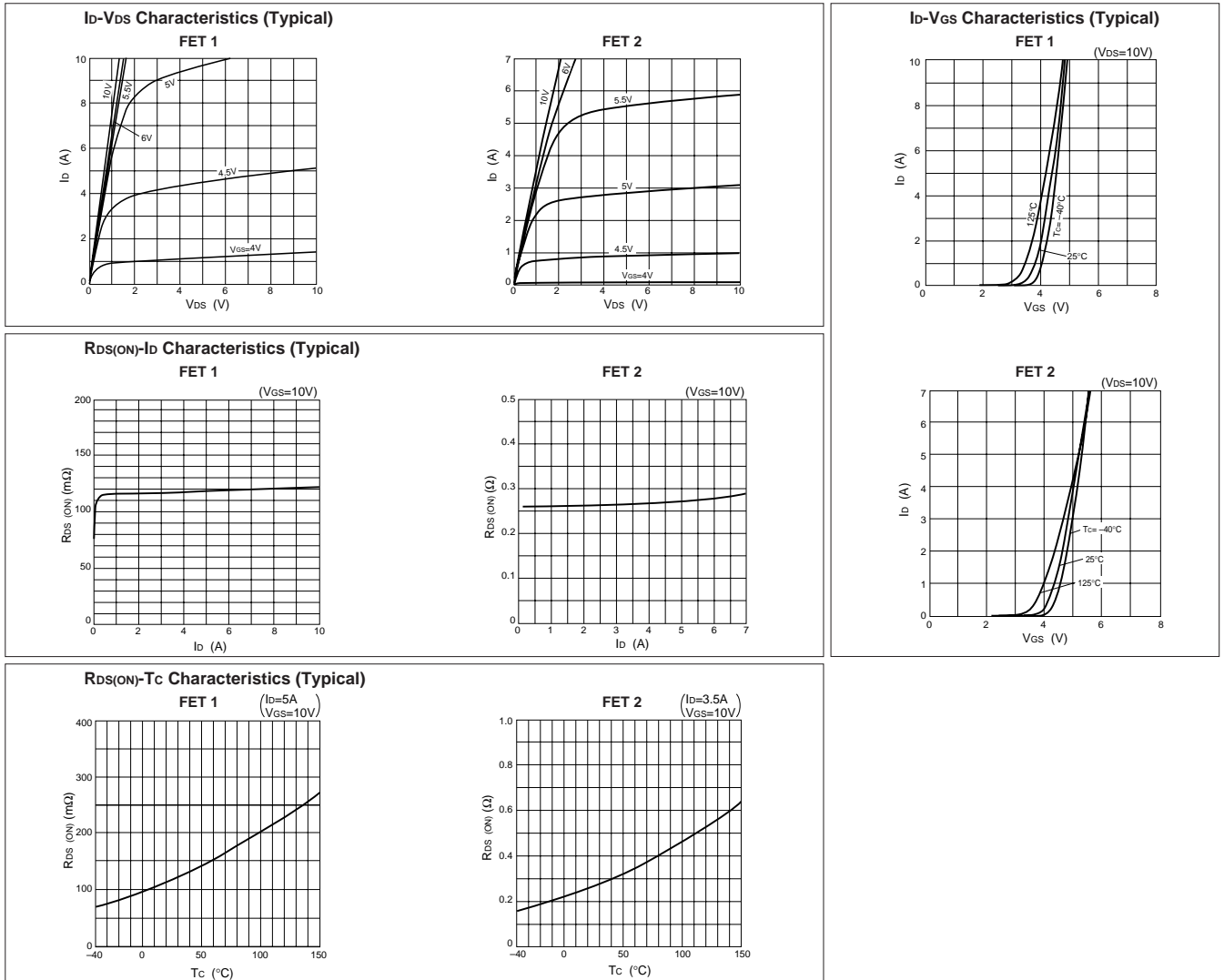
Symbol	Ratings		Unit
	FET 1	FET 2	
$V_{DSS}$	200		V
$V_{GSS}$	$\pm 20$		V
$I_D$	$\pm 7$		A
$I_D(\text{pulse})^*$	$\pm 15$		A
$P_T$	5 ( $T_a=25^\circ\text{C}$ , with all circuits operating, without heatsink)		W
	35 ( $T_c=25^\circ\text{C}$ , with all circuits operating, with infinite heatsink)		W
$\theta_{j-a}$	25 (Junction-Air, $T_a=25^\circ\text{C}$ , with all circuits operating)		$^\circ\text{C}/\text{W}$
$\theta_{j-c}$	3.57 (Junction-Case, $T_c=25^\circ\text{C}$ , with all circuits operating)		$^\circ\text{C}/\text{W}$
$V_{ISO}$	1000 (Between fin and lead pin, AC)		Vrms
$T_{ch}$	150		$^\circ\text{C}$
$T_{stg}$	-40 to +150		$^\circ\text{C}$

\* :  $PW \leq 100\mu\text{s}$ ,  $duty \leq 50\%$

## 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		
$V_{(BR)DSS}$	200			V	$I_D=100\mu\text{A}, V_{GS}=0\text{V}$	200			V	$I_D=100\mu\text{A}, V_{GS}=0\text{V}$
$I_{GSS}$			$\pm 100$	nA	$V_{GS}=\pm 20\text{V}$			$\pm 100$	nA	$V_{GS}=\pm 20\text{V}$
$I_{DSS}$			100	$\mu\text{A}$	$V_{DS}=200\text{V}, V_{GS}=0\text{V}$			100	$\mu\text{A}$	$V_{DS}=200\text{V}, V_{GS}=0\text{V}$
$V_{TH}$	2.0		4.0	V	$V_{DS}=10\text{V}, I_D=1\text{mA}$	2.0		4.0	V	$V_{DS}=10\text{V}, I_D=1\text{mA}$
$R_{e(yfs)}$	4.5	6.5		S	$V_{DS}=10\text{V}, I_D=3.5\text{A}$	2.5	5.0		S	$V_{DS}=10\text{V}, I_D=3.5\text{A}$
$R_{DS(ON)}$		130	175	$\text{m}\Omega$	$V_{GS}=10\text{V}, I_D=3.5\text{A}$		270	350	$\text{m}\Omega$	$V_{GS}=10\text{V}, I_D=3.5\text{A}$
$C_{iss}$		850		pF	$V_{DS}=10\text{V}$		450		pF	$V_{DS}=10\text{V}$
$C_{oss}$		550		pF	$f=1.0\text{MHz}$		280		pF	$f=1.0\text{MHz}$
$C_{rss}$		250		pF	$V_{GS}=0\text{V}$		120		pF	$V_{GS}=0\text{V}$
$t_d(\text{on})$		20		ns	$I_D=3.5\text{A}$		20		ns	$I_D=3.5\text{A}$
$t_r$		25		ns	$V_{DD}\div 100\text{V}$		30		ns	$V_{DD}\div 100\text{V}$
$t_d(\text{off})$		90		ns	$R_L=28.6\Omega$		55		ns	$R_L=28.6\Omega$
$t_f$		70		ns	$V_{GS}=10\text{V}$		75		ns	$V_{GS}=10\text{V}$
$V_{SD}$		1.0	1.5	V	$I_{SD}=7\text{A}, V_{GS}=0\text{V}$		1.0	1.5	V	$I_{SD}=7\text{A}, V_{GS}=0\text{V}$
$t_{rr}$		500		ns	$I_F=\pm 100\text{mA}$		450		ns	$I_F=\pm 100\text{mA}$

## Characteristic curves

