

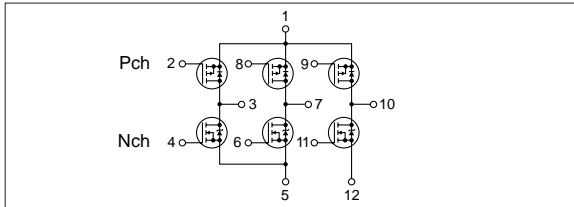
### Absolute maximum ratings

(Ta=25°C)

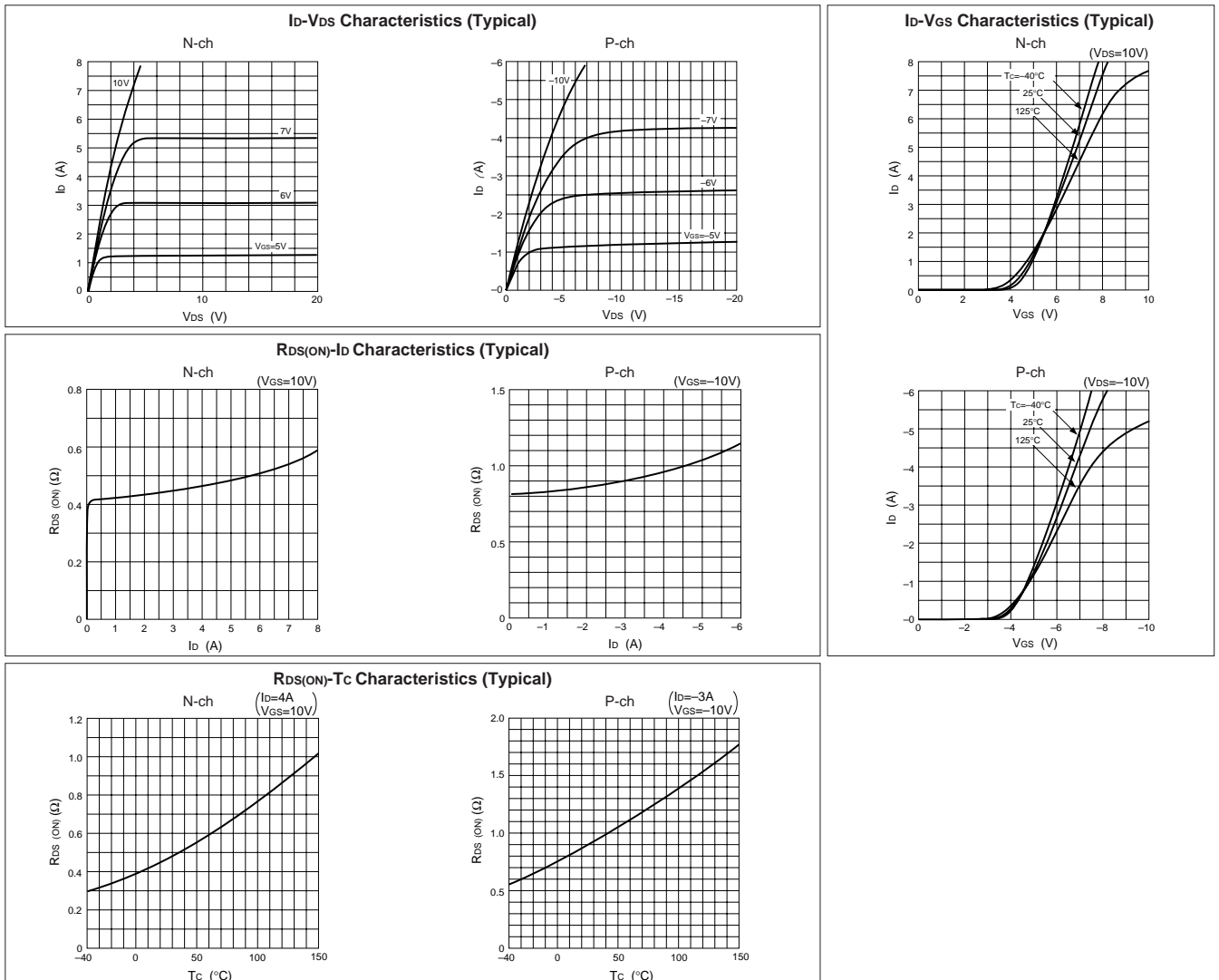
Symbol	Ratings		Unit
	N channel	P channel	
V <sub>DSS</sub>	100	-100	V
V <sub>GSS</sub>	±20	∓20	V
I <sub>D</sub>	±4	∓3	A
I <sub>D(pulse)</sub>	±8 (PW≤1ms)	∓6 (PW≤1ms)	A
E <sub>AS</sub> *	16	—	mJ
P <sub>T</sub>	5 (Ta=25°C, with all circuits operating, without heatsink)		W
	35 (Tc=25°C, with all circuits operating, with infinite heatsink)		W
θ <sub>j-a</sub>	25 (Junction-Air, Ta=25°C, with all circuits operating)		°C/W
θ <sub>j-c</sub>	3.57 (Junction-Case, Tc=25°C, with all circuits operating)		°C/W
V <sub>ISO</sub>	1000 (Between fin and lead pin, AC)		Vrms
T <sub>ch</sub>	150		°C
T <sub>stg</sub>	-40 to +150		°C

\* : V<sub>DD</sub>=20V, L=1mH, I<sub>D</sub>=5A, unclamped, see Fig. E on page 15.

### Equivalent circuit diagram



### Characteristic curves



## Electrical characteristics

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

Symbol	N channel					P channel				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
$V_{(BR)DSS}$	100			V	$I_D=250\mu\text{A}$ , $V_{GS}=0\text{V}$	-100			V	$I_D=-250\mu\text{A}$ , $V_{GS}=0\text{V}$
$I_{GSS}$			$\pm 500$	nA	$V_{GS}=\pm 20\text{V}$			$\mp 500$	nA	$V_{GS}=\mp 20\text{V}$
$I_{DSS}$			250	$\mu\text{A}$	$V_{DS}=100\text{V}$ , $V_{GS}=0\text{V}$			-250	$\mu\text{A}$	$V_{DS}=-100\text{V}$ , $V_{GS}=0\text{V}$
$V_{TH}$	2.0		4.0	V	$V_{DS}=10\text{V}$ , $I_D=250\mu\text{A}$	-2.0		-4.0	V	$V_{DS}=-10\text{V}$ , $I_D=-250\mu\text{A}$
$R_{e(yfs)}$	1.1	1.7		S	$V_{DS}=10\text{V}$ , $I_D=4\text{A}$	0.7	1.1		S	$V_{DS}=-10\text{V}$ , $I_D=-3\text{A}$
$R_{DS(ON)}$		0.50	0.60	$\Omega$	$V_{GS}=10\text{V}$ , $I_D=4\text{A}$		1.1	1.3	$\Omega$	$V_{GS}=-10\text{V}$ , $I_D=-3\text{A}$
$C_{iss}$		180		pF	$V_{DS}=25\text{V}$ , $f=1.0\text{MHz}$ , $V_{GS}=0\text{V}$		180		pF	$V_{DS}=-25\text{V}$ , $f=1.0\text{MHz}$ , $V_{GS}=0\text{V}$
$C_{oss}$		82		pF			85		pF	
$t_{on}$		40		ns	$I_D=4\text{A}$ , $V_{DD}=50\text{V}$ , $V_{GS}=10\text{V}$ ,		90		ns	$I_D=-3\text{A}$ , $V_{DD}=-50\text{V}$ , $V_{GS}=-10\text{V}$ ,
$t_{off}$		40		ns	see Fig. 3 on page 16.		80		ns	see Fig. 4 on page 16.
$V_{SD}$		1.2	2.0	V	$I_{SD}=4\text{A}$ , $V_{GS}=0\text{V}$		-4.0	-5.5	V	$I_{SD}=-3\text{A}$
$t_{rr}$		250		ns	$I_{SD}=\pm 100\text{mA}$		250		ns	$I_{SD}=\mp 100\text{mA}$

## Characteristic curves

