

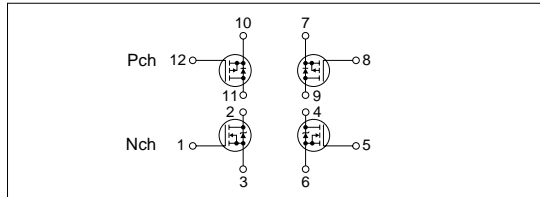
Absolute maximum ratings

(Ta=25°C)

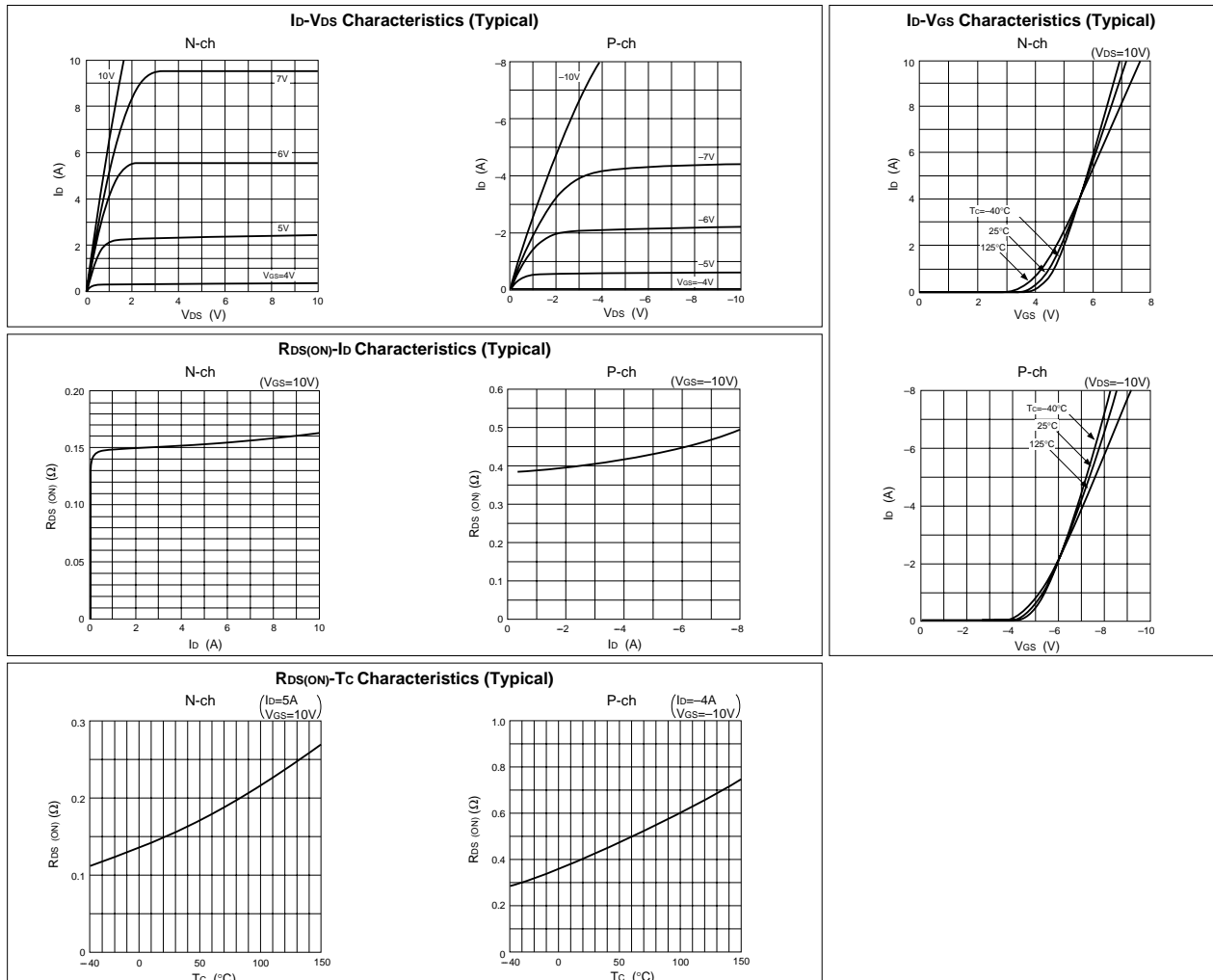
Symbol	Ratings		Unit
	N channel	P channel	
V _{DSS}	60	-60	V
V _{GSS}	±20	∓20	V
I _D	±5	∓4	A
I _{D(pulse)}	±10 (PW≤1ms)	∓8 (PW≤1ms)	A
E _{AS*}	2	—	mJ
P _T	5 (Ta=25°C, with all circuits operating, without heatsink)		W
	35 (Tc=25°C, with all circuits operating, with infinite heatsink)		W
θ _{J-a}	25 (Junction-Air, Ta=25°C, with all circuits operating)		°C/W
θ _{J-c}	3.57 (Junction-Case, Tc=25°C, with all circuits operating)		°C/W
V _{ISO}	1000 (Between fin and lead pin, AC)		V _{rms}
T _{ch}	150		°C
T _{stg}	-40 to +150		°C

*: V_{DD}=20V, L=1mH, I_D=2A, unclamped, see Fig. E on page 15.

Equivalent circuit diagram



Characteristic curves



Electrical characteristics

(Ta=25°C)

Symbol	N channel					P channel				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
V(BR)DSS	60			V	I _D =250μA, V _{GS} =0V	-60			V	I _D =-250μA, V _{GS} =0V
I _{GSS}			±500	nA	V _{GS} =±20V			∓500	nA	V _{GS} =∓20V
I _{DSS}			250	μA	V _{DS} =60V, V _{GS} =0V			-250	μA	V _{DS} =-60V, V _{GS} =0V
V _{TH}	2.0		4.0	V	V _{DS} =10V, I _D =250μA	-2.0		-4.0	V	V _{DS} =-10V, I _D =-250μA
Re(yfs)	2.2	3.3		S	V _{DS} =10V, I _D =5A	1.6	2.2		S	V _{DS} =-10V, I _D =-4A
R _{DS(ON)}		0.17	0.22	Ω	V _{GS} =10V, I _D =5A		0.38	0.55	Ω	V _{GS} =-10V, I _D =-4A
C _{iss}		300		pF	V _{DS} =25V, f=1.0MHz, V _{GS} =0V		270		pF	V _{DS} =-25V, f=1.0MHz, V _{GS} =0V
C _{oss}		160		pF			170		pF	
t _{on}		35		ns	I _D =5A, V _{DD} ≐30V, V _{GS} =10V		60		ns	I _D =-4A, V _{DD} ≐-30V, V _{GS} =10V,
t _{off}		35		ns	see Fig. 3 on page 16.		60		ns	see Fig. 4 on page 16.
V _{SD}		1.1	1.5	V	I _{SD} =5A, V _{GS} =0V		-4.4	-5.5	V	I _{SD} =-4A, V _{GS} =0V
t _{rr}		140		ns	I _{SD} =±100mA		150		ns	I _{SD} =∓100mA

Characteristic curves

