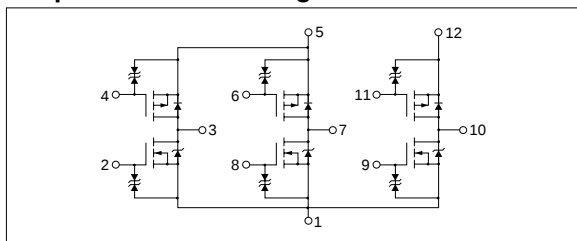


Absolute maximum ratings

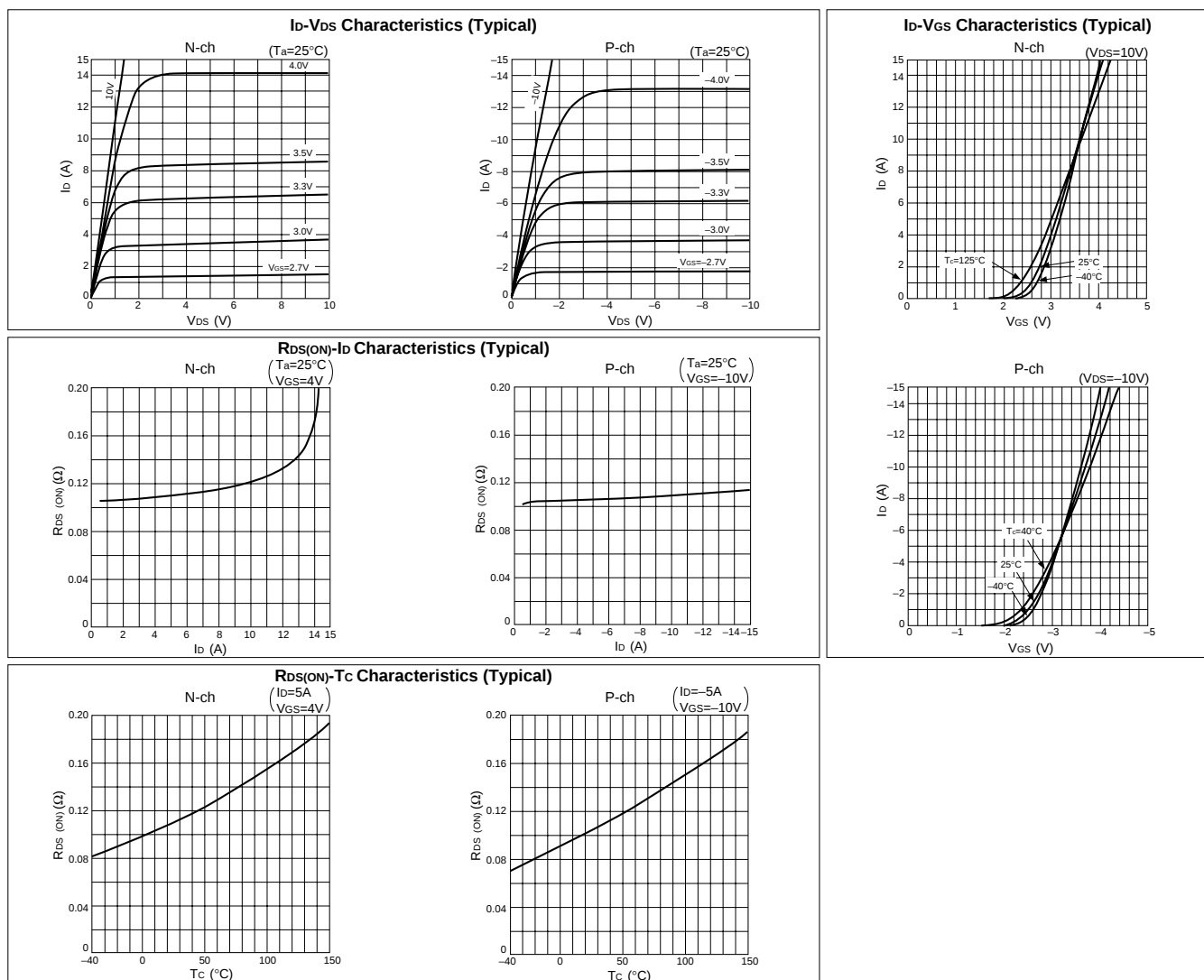
(Ta=25°C)

Symbol	Ratings		Unit
	N channel	P channel	
V _{DS}	60	-60	V
V _{GS}	±20	±20	V
I _D	10	-10	A
I _{D(pulse)}	15 (PW≤1ms, duty≤25%)	-15 (PW≤1ms, duty≤25%)	A
P _T	4 (Ta=25°C, with all circuits operating, without heatsink)		W
	30 (Tc=25°C, with all circuits operating, with infinite heatsink)		W
θ _{J-a}	31.25 (Junction-Air, Ta=25°C, with all circuits operating)		°C/W
θ _{J-c}	4.166 (Junction-Case, Tc=25°C, with all circuits operating)		°C/W
T _{ch}	150		°C
T _{stg}	-40 to +150		°C

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	$I_D=100\mu A$, $V_{GS}=0V$	-60			V	$I_D=-100\mu A$, $V_{GS}=0V$
I_{GSS}			± 10	μA	$V_{GS}=\pm 20V$			± 10	μA	$V_{GS}=\pm 20V$
I_{DSS}			100	μA	$V_{DS}=60V$, $V_{GS}=0V$			-100	μA	$V_{DS}=-60V$, $V_{GS}=0V$
V_{TH}	1.0		2.0	V	$V_{DS}=10V$, $I_D=250\mu A$	-1.0		-2.0	V	$V_{DS}=-10V$, $I_D=-250\mu A$
$R_{e(yfs)}$		8.0		S	$V_{DS}=10V$, $I_D=5A$		8.7		S	$V_{DS}=-10V$, $I_D=-5A$
$R_{DS(ON)}$			0.14	Ω	$V_{GS}=4V$, $I_D=5A$			0.14	Ω	$V_{GS}=-10V$, $I_D=-5A$
C_{iss}		460		pF	$V_{DS}=10V$, $f=1.0MHz$, $V_{GS}=0V$		1200		pF	$V_{DS}=-10V$, $f=1.0MHz$, $V_{GS}=0V$
C_{oss}		225		pF			440		pF	
C_{rss}		50		pF			120		pF	
$t_{d(on)}$		25		ns	$I_D=5A$, $V_{DD}\div 20V$, $R_L=4\Omega$, $V_{GS}=5V$, $R_G=50\Omega$, see Fig.3 on page 16.		50		ns	$I_D=-5A$, $V_{DD}\div 20V$, $R_L=4\Omega$, $V_{GS}=-5V$, $R_G=50\Omega$, see Fig.4 on page 16.
t_r		110		ns			170		ns	
$t_{d(off)}$		90		ns			180		ns	
t_f		55		ns			100		ns	
V_{SD}		1.15		ns	$I_{SD}=10A$, $V_{GS}=0V$		-1.25		V	$I_{SD}=-10A$, $V_{GS}=0V$
t_{rr}		75		V	$I_{SD}=5A$, $di/dt=100A/\mu s$		100		ns	$I_{SD}=-5A$, $di/dt=100A/\mu s$

Characteristic curves

