

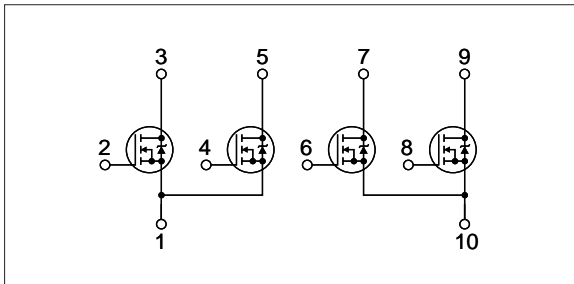
Absolute maximum ratings

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

Symbol	Ratings	Unit
V_{DSS}	100	V
V_{GSS}	± 20	V
I_D	± 2	A
$I_D(\text{pulse})$	± 5 ($PW \leq 100\mu\text{s}$, $D_u \leq 1\%$)	A
E_{AS}^*	5.6	mJ
P_T	4 ($T_a=25^\circ\text{C}$)	W
	20 ($T_c=25^\circ\text{C}$)	W
T_{ch}	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

* : $V_{DD}=25\text{V}$, $L=2.2\text{mH}$, $I_L=2\text{A}$, unclamped, $R_G=50\Omega$, see Fig. E on page 15.

Equivalent circuit diagram



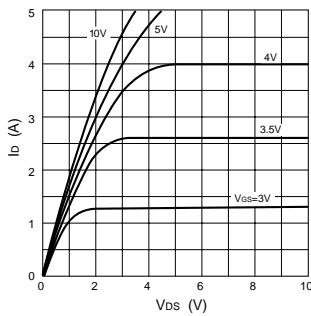
Electrical characteristics

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

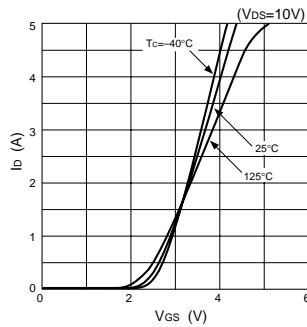
Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	100			V	$I_D=100\mu\text{A}$, $V_{GS}=0\text{V}$
I_{GSS}			± 100	nA	$V_{GS}=\pm 20\text{V}$
I_{DSS}			100	μA	$V_{DS}=100\text{V}$, $V_{GS}=0\text{V}$
V_{TH}	1.0		2.0	V	$V_{DS}=10\text{V}$, $I_D=250\mu\text{A}$
$R_{e(yfs)}$	1.5	2.0		S	$V_{DS}=10\text{V}$, $I_D=1\text{A}$
		0.55	0.80	Ω	$V_{GS}=10\text{V}$, $I_D=1\text{A}$
$R_{DS(ON)}$		0.70	0.95	Ω	$V_{GS}=4\text{V}$, $I_D=1\text{A}$
		150		pF	$V_{DS}=25\text{V}$, $f=1.0\text{MHz}$,
C_{ISS}		45		pF	$V_{GS}=0\text{V}$
C_{OSS}		9		pF	$V_{GS}=0\text{V}$
C_{RSS}		15		ns	$I_D=1\text{A}$,
$t_{d(ON)}$		30		ns	$V_{DD} \approx 50\text{V}$,
t_r		40		ns	$R_L=50\Omega$,
$t_{d(OFF)}$		30		ns	$V_{GS}=5\text{V}$, see Fig. 3 on page 16.
t_f		30		ns	
V_{SD}	1.0	1.5		V	$I_{SD}=2\text{A}$, $V_{GS}=0\text{V}$
t_{rr}		160		ns	$I_{SD}=\pm 100\text{mA}$

Characteristic curves

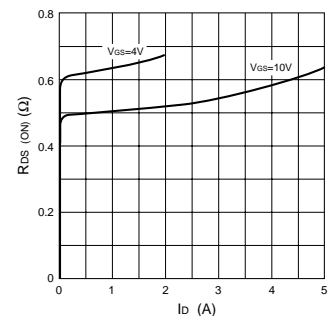
I_D - V_{DS} Characteristics (Typical)



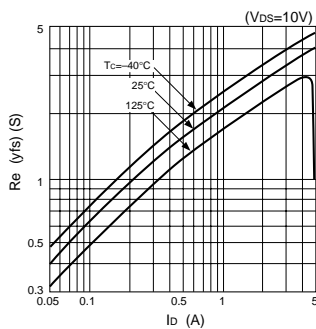
I_D - V_{GS} Characteristics (Typical)



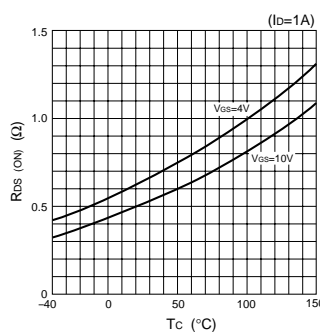
$R_{DS(ON)}$ - I_D Characteristics (Typical)



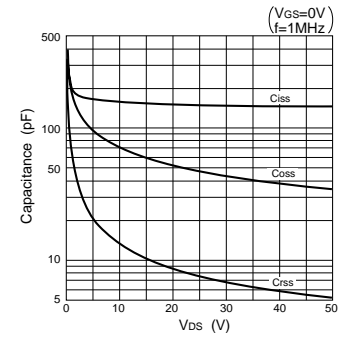
$R_{e(yfs)}$ - I_D Characteristics (Typical)



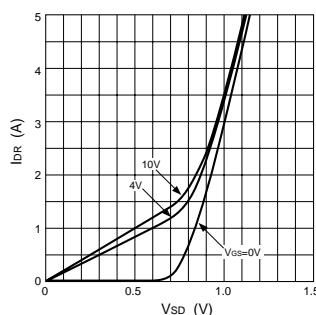
$R_{DS(ON)}$ - T_c Characteristics (Typical)



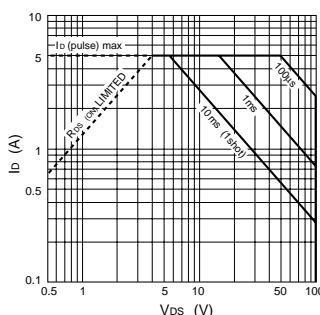
Capacitance- V_{DS} Characteristics (Typical)



I_{DR} - V_{SD} Characteristics (Typical)



P_T - T_a Characteristics



Safe Operating Area (SOA)

