

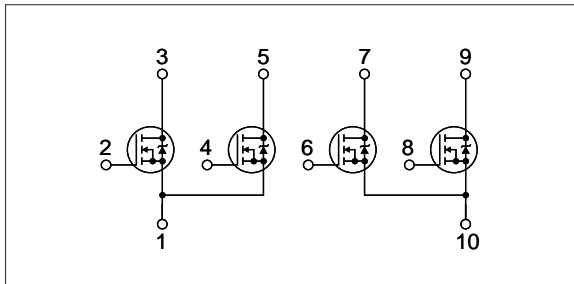
## Absolute maximum ratings

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

Symbol	Ratings	Unit
$V_{DSS}$	100	V
$V_{GSS}$	$\pm 20$	V
$I_D$	$\pm 2$	A
$I_{D(pulse)}$	$\pm 5$ ( $PW \leq 100\mu s$ , $D_u \leq 1\%$ )	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	$^\circ\text{C}$

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

## Equivalent circuit diagram



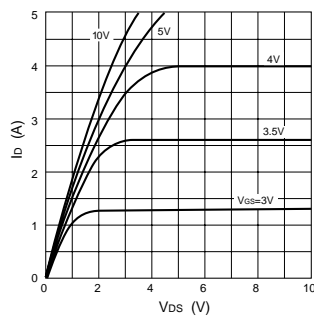
## Electrical characteristics

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

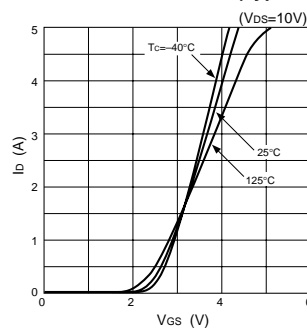
Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	100			V	$I_D=100\mu A$ , $V_{GS}=0V$
$I_{GSS}$			$\pm 100$	nA	$V_{GS}=\pm 20V$
$I_{DSS}$			100	$\mu A$	$V_{DS}=100V$ , $V_{GS}=0V$
$V_{TH}$	1.0		2.0	V	$V_{DS}=10V$ , $I_D=250\mu A$
$R_{DS(ON)}$	1.5	2.0		S	$V_{DS}=10V$ , $I_D=1A$
		0.55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

## Characteristic curves

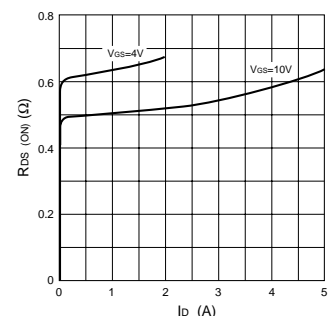
$I_D$ - $V_{DS}$  Characteristics (Typical)



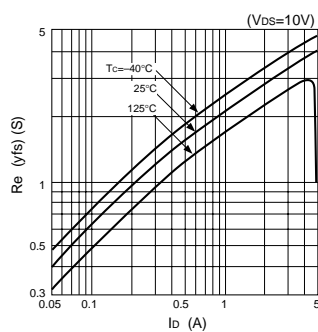
$I_D$ - $V_{GS}$  Characteristics (Typical)



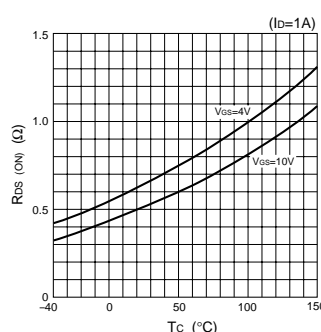
$R_{DS(ON)}$ - $I_D$  Characteristics (Typical)



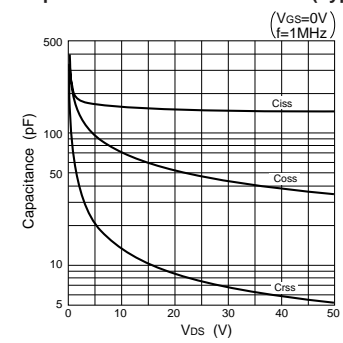
$R_{DS(ON)}$ - $I_D$  Characteristics (Typical)



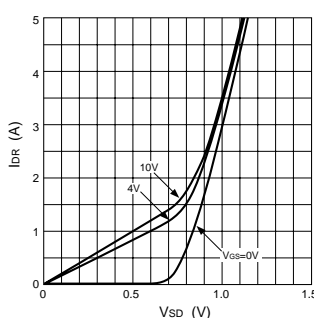
$R_{DS(ON)}$ - $T_c$  Characteristics (Typical)



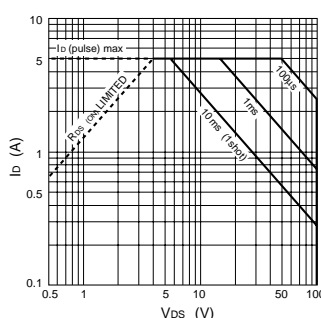
Capacitance- $V_{DS}$  Characteristics (Typical)



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



$P_T$ - $T_a$  Characteristics



Safe Operating Area (SOA)

