Surface-mount MOS FET Array SDK08

Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V_{DSS}	50	V
V_{GSS}	±20	V
I_D	±4.5	A
$I_{D\ (pulse)}$ *1	±9	A
P_T	4 (Tc=25°C, 4 circuits operate)	W
E_{AS} *2	80	mJ
Tch	150	°C
Tstg	–55 to +150	°C

*1 $P_W \leqq 100\mu s$, duty ≦1%

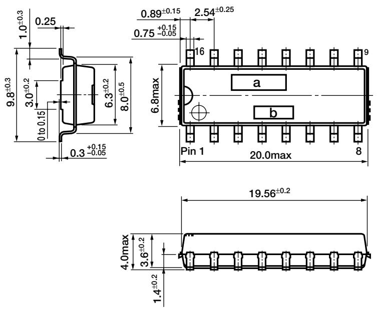
*2 $V_{DD}=12V$, L=10mH, unclamped, $R_G=50\Omega$

Electrical Characteristics

(Ta=25°C)

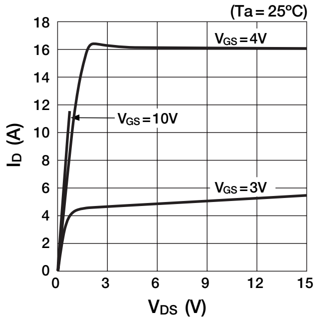
Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
$V_{(BR)\ DSS}$	$I_D=100\mu A$, $V_{GS}=0V$	50			V
I_{GSS}	$V_{GS}=\pm 20V$			±100	nA
I_{DSS}	$V_{DS}=50V$, $V_{GS}=0V$			100	μA
V_{TH}	$V_{DS}=10V$, $I_D=1mA$	1.3	1.8	2.3	V
$R_{e\ (yfs)}$	$V_{DS}=10V$, $I_D=4.0A$	5.0	9.0	13.0	S
$R_{DS\ (ON)}$	$V_{GS}=10V$, $I_D=4.0A$		0.07	0.08	Ω
	$V_{GS}=4V$, $I_D=4.0A$		0.09	0.1	Ω
Ciss	$V_{DS}=10V$ f=1.0MHz $V_{GS}=0V$		700		pF
Coss			300		pF
Crss			90		pF
$t_{d\ (on)}$	$I_D=4A$ $V_{DD} \fallingdotseq 12V$ $R_L=3\Omega$ $V_{GS}=5V$ $R_G=50\Omega$		50		ns
t_r			80		ns
$t_{d\ (off)}$			60		ns
t_f			40		ns
V_{SD}	$I_{SD}=6A$, $V_{GS}=0V$		1.0	1.5	V

External Dimensions SMD-16A

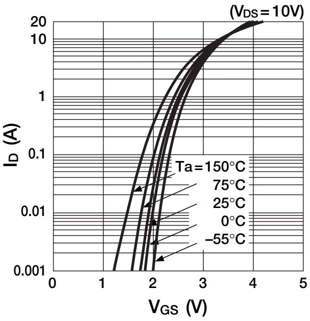


a) Part No.
b) Lot No.
(Unit: mm)

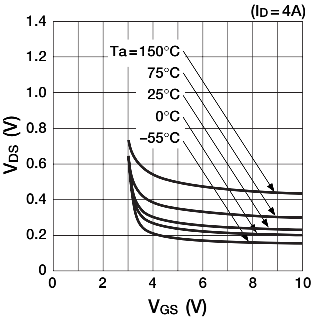
■ I_D — V_{DS} Characteristics (typ.)



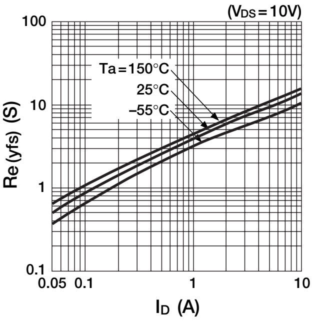
■ I_D — V_{GS} Characteristics



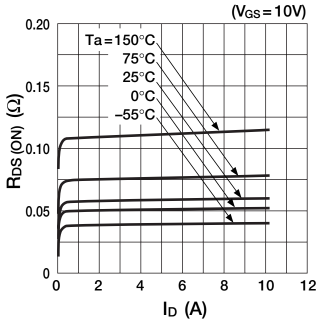
■ V_{DS} — V_{GS} Characteristics (typ.)



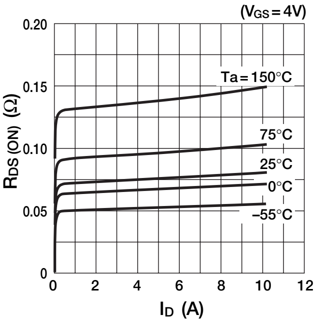
■ Re (yfs) — I_D Characteristics



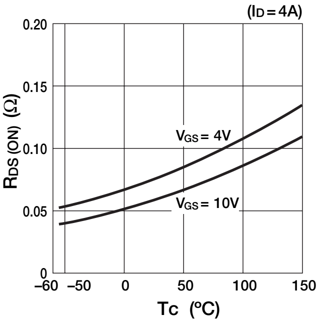
■ $R_{DS\ (ON)}$ — I_D Characteristics



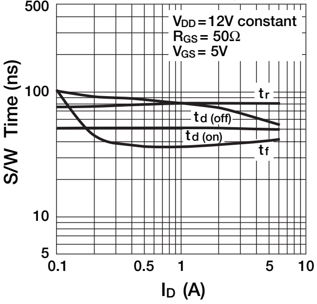
■ $R_{DS\ (ON)}$ — I_D Characteristics



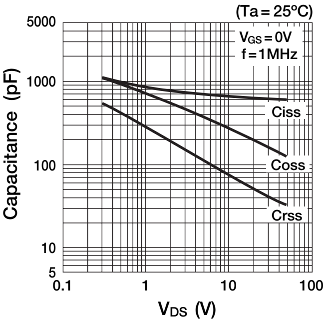
■ $R_{DS\ (ON)}$ — T_C Characteristics (typ.)



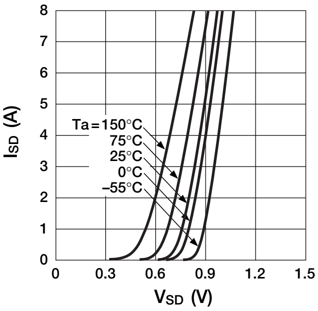
■ S/W Time$_W$ — I_D Characteristics (single pulse)



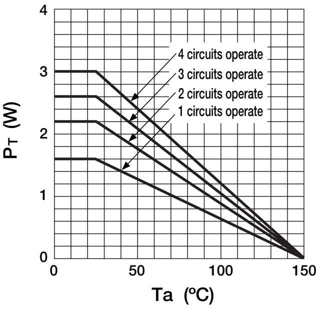
■ Capacitance — V_{DS} Characteristics



■ I_{SD} — V_{SD} Characteristics (typ.)



■ P_T — Ta Characteristics



Equivalent Circuit Diagram