Surface-mount MOS FET Array SDK06

Absolute Maximum Ratings (Ta=25°C)

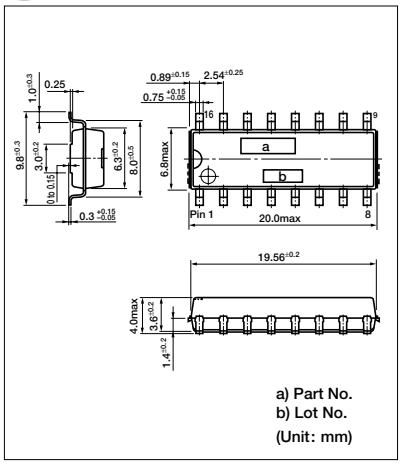
Symbol	Ratings	Unit
V_{DSS}	52±5	V
V_{GSS}	±20	V
I_D	±3	A
$I_{D\ (pulse)}$ *1	±6	A
P_T	3 (Tc=25°C, 4 circuits operate)	W
E_{AS} *2	40	mJ
Tch	150	°C
Tstg	−55 to +150	°C

*1 $P_W \leqq 100\mu s$, duty $\leqq 1\%$
*2 $V_{DD}=12V$, L=10mH, unclamped, $R_G=10\Omega$

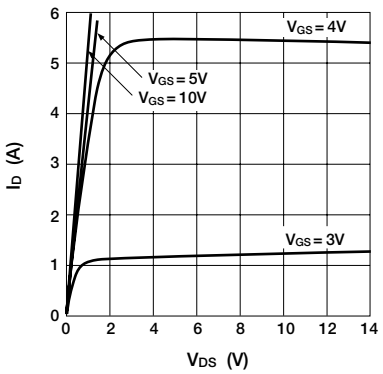
Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings min	Ratings typ	Ratings max	Unit
$V_{(BR)\ DSS}$	$I_D=1mA$, $V_{GS}=0V$	47	52	57	V
I_{GSS}	$V_{GS}=\pm 20V$			±1.0	μA
I_{DSS}	$V_{DS}=40V$, $V_{GS}=0V$			100	μA
V_{TH}	$V_{DS}=10V$, $I_D=250\mu A$	1.0	1.8	2.5	V
$Re\ (yfs)$	$V_{DS}=10V$, $I_D=1.0A$	1.0			S
$R_{DS\ (ON)}$	$V_{GS}=10V$, $I_D=1.0A$		0.2	0.25	Ω
	$V_{GS}=4V$, $I_D=1.0A$		0.25	0.3	Ω
Ciss	$V_{DS}=10V$		200		pF
Coss	f=1.0MHz		120		pF
Crss	$V_{GS}=0V$		20		pF
$t_{d\ (on)}$	$I_D=1A$		2.0		μs
t_r	$V_{DD} \fallingdotseq 12V$		7.4		μs
$t_{d\ (off)}$	$R_L=12\Omega$		3.3		μs
t_f	$V_{GS}=5V$		4.2		μs
V_{SD}	$R_{G1}=50\Omega$, $R_{G2}=10k\Omega$		1.0	1.5	V
	$I_{SD}=1A$, $V_{GS}=0V$				

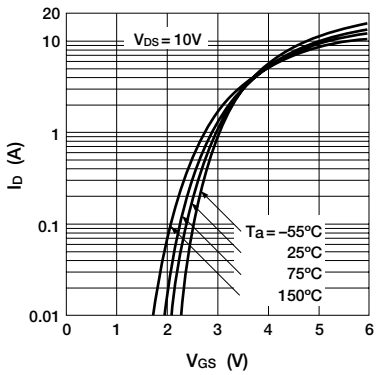
External Dimensions SMD-16A



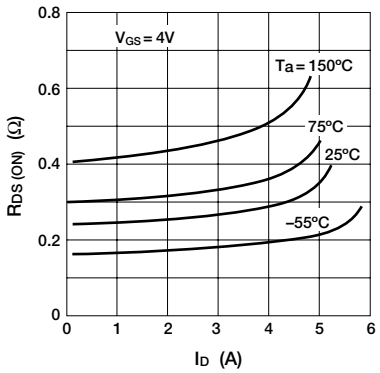
■ I_D — V_{DS} Characteristics



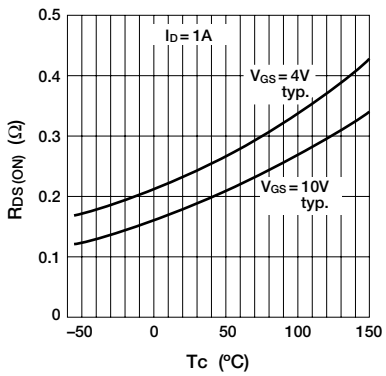
■ I_D — V_{GS} Characteristics



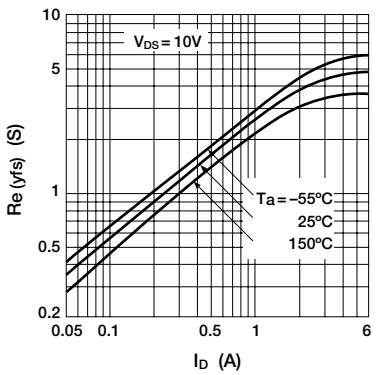
■ $R_{DS\ (ON)}$ — I_D Characteristics



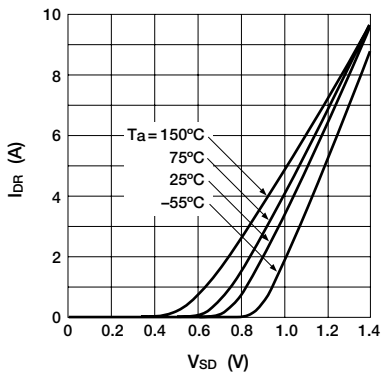
■ $R_{DS\ (ON)}$ — T_C Characteristics



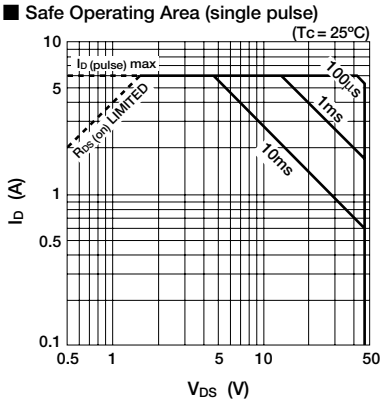
■ $Re\ (yfs)$ — I_D Characteristics



■ I_{DR} — V_{SD} Characteristics



■ Safe Operating Area (single pulse)



Equivalent Circuit Diagram