Surface-mount MOS FET Array SDK09

Absolute Maximum Ratings (Ta=25°C)

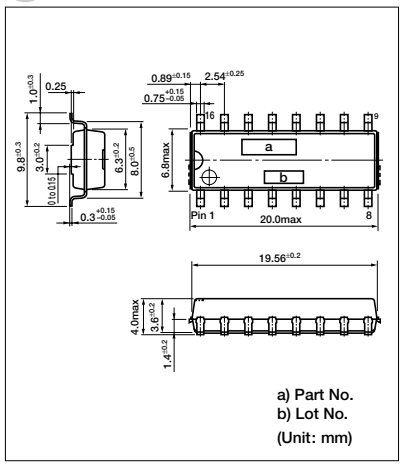
Symbol	Ratings	Unit
V_{DSS}	120	V
V_{GSS}	±20	V
I_D	±6	A
$I_{D\ (pulse)}$ *1	±10	A
P_T	3 (Tc=25°C, 4 circuits operate)	W
E_{AS} *2	80	mJ
Tch	150	°C
Tstg	−55 to +150	°C

*1 $P_W \leqq 100\mu s$, duty ≦1%
*2 $V_{DD}=12V$, L=10mH, unclamped, $R_G=50\Omega$

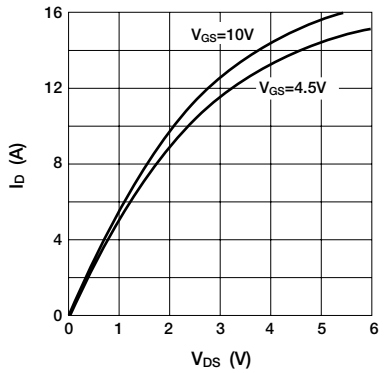
Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings min	Ratings typ	Ratings max	Unit
$V_{(BR)\ DSS}$	I_D=100μA, V_{GS}=0V	120			V
I_{GSS}	V_{GS}=±20V			±5	μA
I_{DSS}	V_{DS}=120V, V_{GS}=0V			100	μA
V_{TH}	V_{DS}=10V, I_D=250μA	1.0		2.0	V
Re (yfs)	V_{DS}=10V, I_D=4A	5.0			S
$R_{DS\ (ON)}$	V_{GS}=10V, I_D=4A		0.15	0.2	Ω
	V_{GS}=4V, I_D=4A		0.2	0.25	
Ciss	V_{DS}=10V, f=1.0MHz, V_{GS}=0V		400		pF
Coss			130		pF
Crss			30		pF
$t_{d\ (on)}$	I_D=4A, V_{DD}=12V, R_L=3Ω, V_{GS}=5V, R_G=50Ω		100		ns
t_r			300		ns
$t_{d\ (off)}$			250		ns
t_f			200		ns
V_{SD}	I_{SD}=6A, V_{GS}=0V		1.0	1.5	V

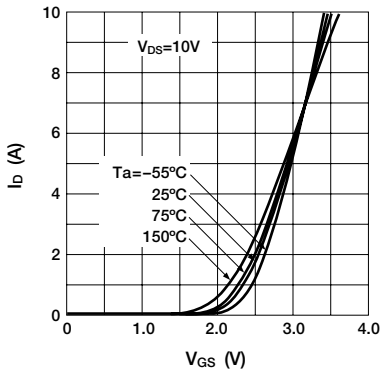
External Dimensions SMD-16A



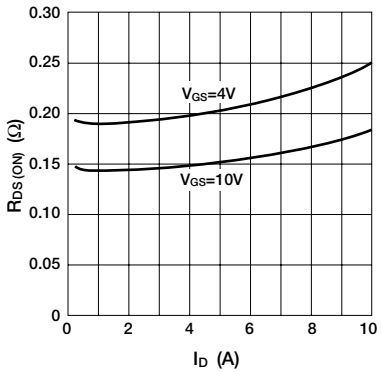
■ I_D—V_{DS} Characteristics



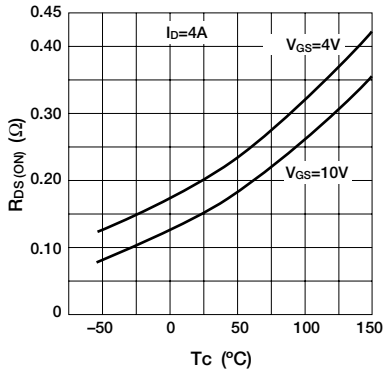
■ I_D—V_{GS} Characteristics



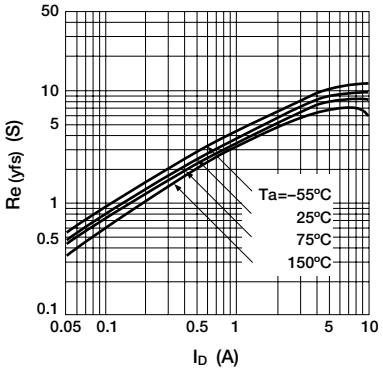
■ $R_{DS\ (ON)}$—I_D Characteristics



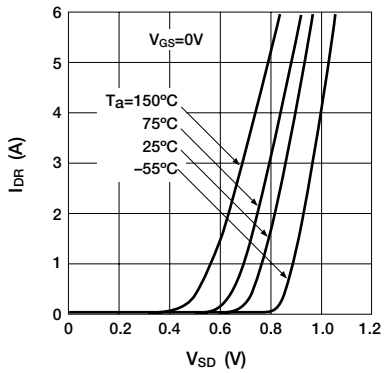
■ $R_{DS\ (ON)}$—T_C Characteristics



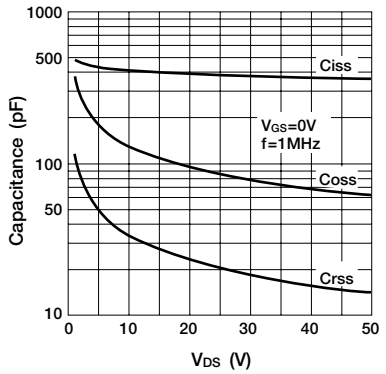
■ Re (yfs)—I_D Characteristics



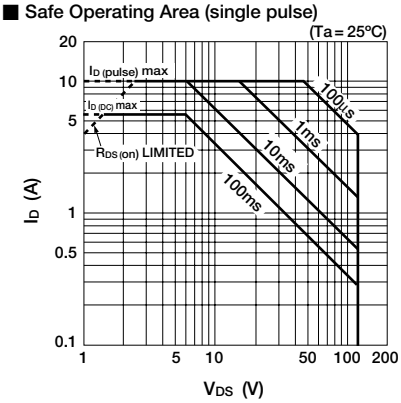
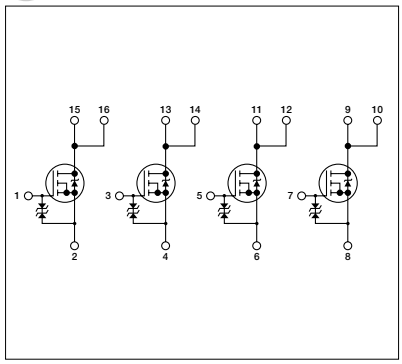
■ I_{DR}—V_{SD} Characteristics



■ Capacitance—V_{DS} Characteristics



■ Safe Operating Area (single pulse)



Equivalent Circuit Diagram