MOS FET Array SLA5027

Absolute Maximum Ratings (Ta=25ºC)

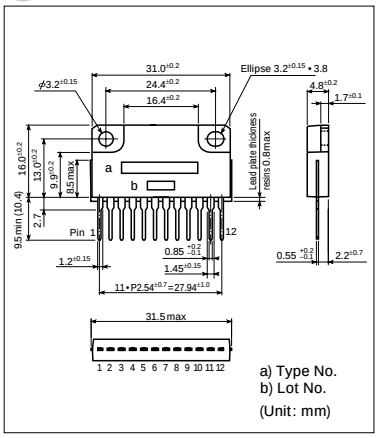
Symbol	Ratings	Unit
V_{DSS}	60	V
V_{GSS}	±20	V
I_D	±12	A
$I_{D\ (pulse)}$*1	±48	A
P_T	5 (Ta=25ºC, 4 circuits operate)	W
	60 (Tc=25ºC,4 circuits operate)	W
E_{AS}*2	250	mJ
θ j-c	2.08	ºC/W
V_{ISO}	(Fin to lead terminal) AC1000	Vrms
Tch	150	ºC
Tstg	–55 to +150	ºC

*1 $P_W \leqq 250\mu s$, duty ≦1%
*2 V_{DD}=30V, L=10mH, unclamped, R_G=50Ω

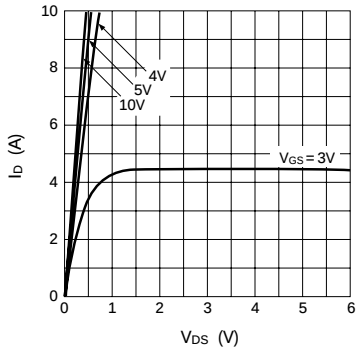
Electrical Characteristics (Ta=25ºC)

Symbol	Test Conditions	Ratings min	Ratings typ	Ratings max	Unit
$V_{(BR)\ DSS}$	I_D=100µA, V_{GS}=0V	60			V
I_{GSS}	V_{GS}=±20V			±100	µA
I_{DSS}	V_{DS}=60V, V_{GS}=0V			100	µA
V_{TH}	V_{DS}=10V, I_D=1mA	1.0	1.5	2.0	V
$Re_{(yfs)}$	V_{DS}=10V, I_D=8A	6.0	12.0		S
$R_{DS\ (ON)}$	V_{GS}=4V, I_D=8A		0.07	0.08	Ω
Ciss	V_{DS}=10V f=1.0MHz V_{GS}=0V		1100		pF
Coss			500		pF
Crss			170		pF
$t_{d\ (on)}$	I_D=8A V_{DD}≒30V R_L=3.75Ω V_{GS}=5V R_G=50Ω		50		ns
t_r			250		ns
$t_{d\ (off)}$			250		ns
t_f			180		ns
V_{SD}	I_{SD}=10A, V_{GS}=0V		1.0	1.5	V

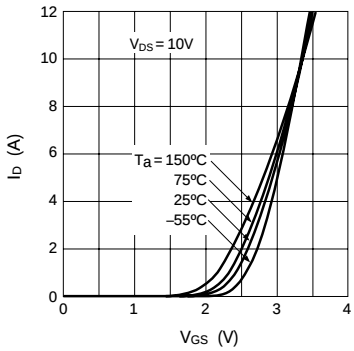
External Dimensions SLA (LF800)



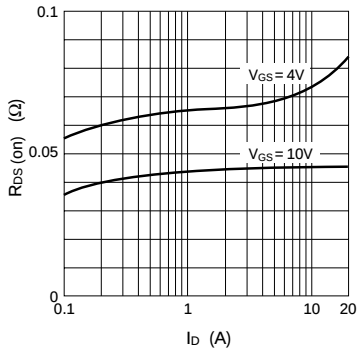
■ I_D — V_{DS} Characteristics



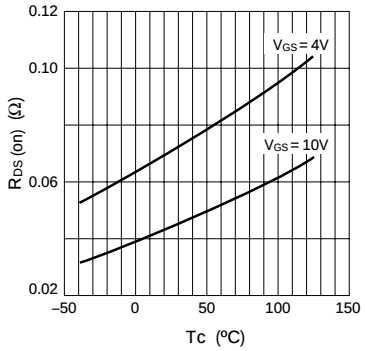
■ I_D — V_{GS} Characteristics



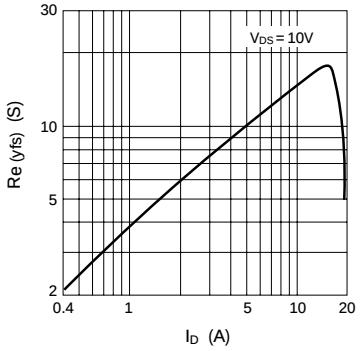
■ R_{DS} (on) — I_D Characteristics



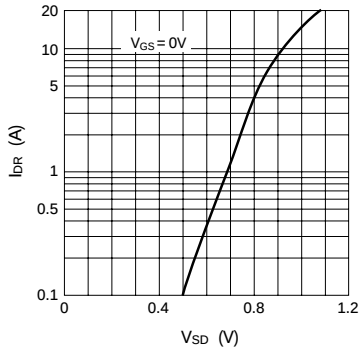
■ R_{DS} (on) — T_C Characteristics



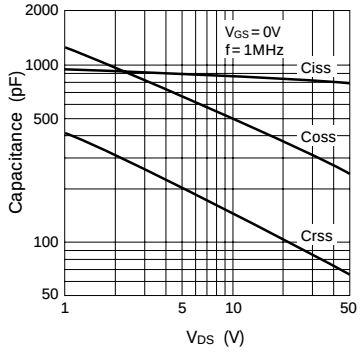
■ $Re_{(yfs)}$ — I_D Characteristics



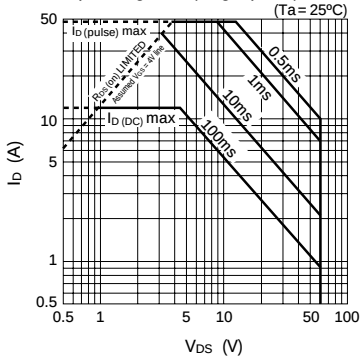
■ I_{DR} — V_{SD} Characteristics



■ Capacitance — V_{DS} Characteristics



■ Safe Operating Area (single pulse)



Equivalent Circuit Diagram