

# MOS FET Array SLA5027

## Absolute Maximum Ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>DSS</sub>	60	V
V <sub>GSS</sub>	±20	V
I <sub>D</sub>	±12	A
I <sub>D</sub> (pulse)*1	±48	A
P <sub>T</sub>	5 (Ta=25°C, 4 circuits operate)	W
	60 (Tc=25°C, 4 circuits operate)	W
E <sub>AS</sub> *2	250	mJ
θ <sub>J-c</sub>	2.08	°C/W
V <sub>ISO</sub>	(Fin to lead terminal) AC1000	V <sub>rms</sub>
T <sub>ch</sub>	150	°C
T <sub>stg</sub>	-55 to +150	°C

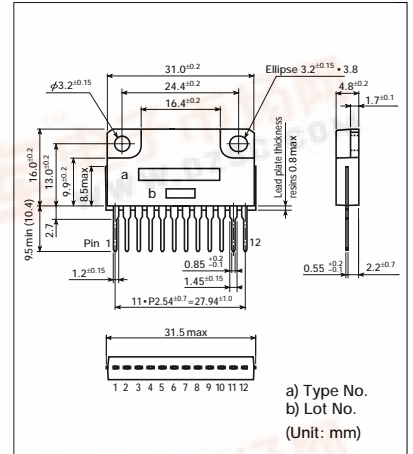
\*1 P<sub>W</sub> ≤ 250μs, duty ≤ 1%

\*2 V<sub>DD</sub> = 30V, L = 10mH, unclamped, R<sub>G</sub> = 50Ω

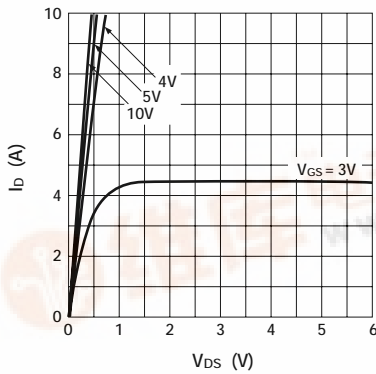
## Electrical Characteristics (Ta=25°C)

Symbol	Test Conditions	Ratings			Unit
		min	typ	max	
V <sub>(BR) DSS</sub>	I <sub>D</sub> = 100μA, V <sub>GS</sub> = 0V	60			V
I <sub>GSS</sub>	V <sub>DS</sub> = ±20V			±100	μA
I <sub>DSS</sub>	V <sub>DS</sub> = 60V, V <sub>GS</sub> = 0V			100	μA
V <sub>TH</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	1.0	1.5	2.0	V
Re (yfs)	V <sub>DS</sub> = 10V, I <sub>D</sub> = 8A	6.0	12.0		S
R <sub>DS (ON)</sub>	V <sub>GS</sub> = 4V, I <sub>D</sub> = 8A	0.07	0.08		Ω
C <sub>iss</sub>	V <sub>DS</sub> = 10V		1100		pF
C <sub>oss</sub>	f = 1.0MHz		500		pF
C <sub>rss</sub>	V <sub>GS</sub> = 0V		170		pF
t <sub>d (on)</sub>	I <sub>D</sub> = 8A		50		ns
t <sub>r</sub>	V <sub>DD</sub> = 30V R <sub>L</sub> = 3.75Ω		250		ns
t <sub>d (off)</sub>	V <sub>GS</sub> = 5V R <sub>G</sub> = 50Ω		250		ns
t <sub>f</sub>			180		ns
V <sub>SD</sub>	I <sub>SD</sub> = 10A, V <sub>GS</sub> = 0V	1.0	1.5		V

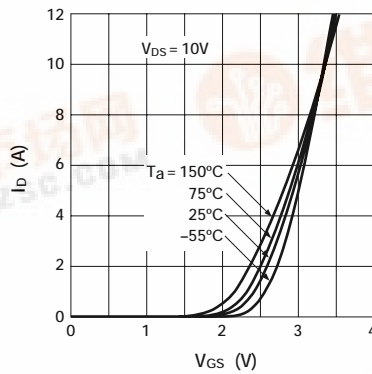
## External Dimensions SLA (LF800)



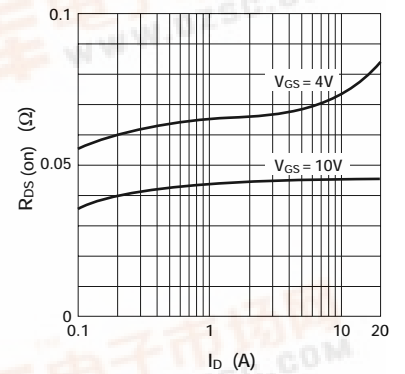
### I<sub>D</sub> - V<sub>DS</sub> Characteristics



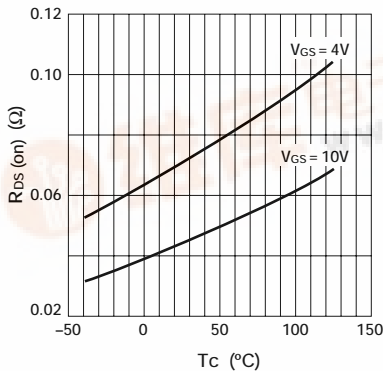
### I<sub>D</sub> - V<sub>GS</sub> Characteristics



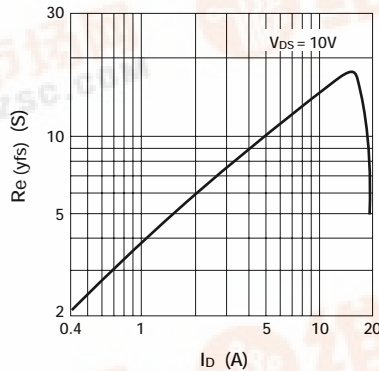
### R<sub>DS (on)</sub> - I<sub>D</sub> Characteristics



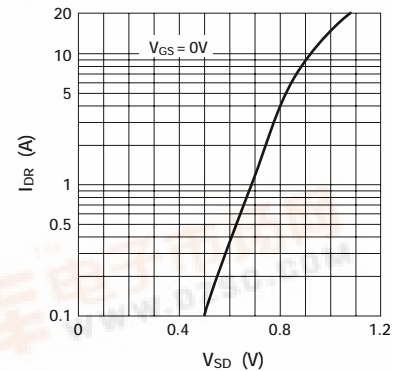
### R<sub>DS (on)</sub> - T<sub>C</sub> Characteristics



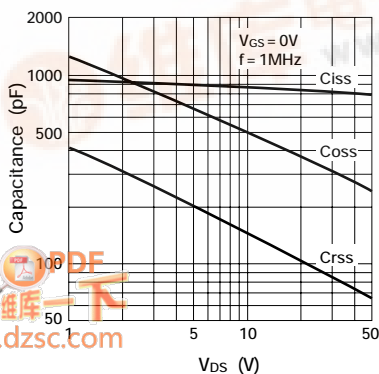
### Re (yfs) - I<sub>D</sub> Characteristics



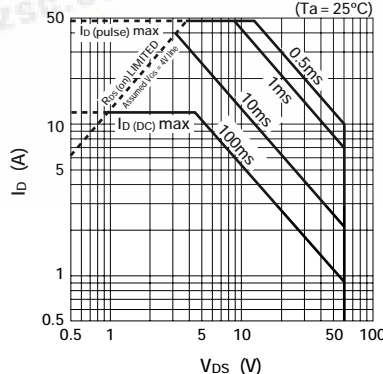
### I<sub>DR</sub> - V<sub>SD</sub> Characteristics



### Capacitance - V<sub>DS</sub> Characteristics



### Safe Operating Area (single pulse)



## Equivalent Circuit Diagram

