SLA5094

N-channel
General purpose

External dimensions Ⓐ ··· SLA (12-pin)

Absolute maximum ratings (Ta=25°C)

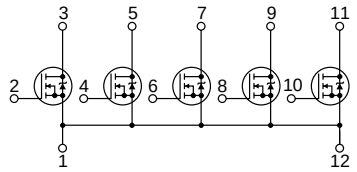
Symbol	Ratings	Unit
V_{DSS}	200	V
V_{GSS}	±20	V
I_D	±7	A
$I_{D(pulse)}$	±15 (PW≤100μs, duty≤1%)	A
E_{AS}*	55	mJ
I_{AS}*	7	A
P_T	5 (Ta=25°C, with all circuits operating, without heatsink)	W
	35 (Tc=25°C, with all circuits operating, with infinite heatsink)	
θj-a	25 (Junction-Air, Ta=25°C, with all circuits operating)	°C/W
θj-c	3.57 (Junction-Case, Tc=25°C, with all circuits operating)	°C/W
V_{ISO}	1000 (Between fin and lead pin, AC)	Vrms
Tch	150	°C
Tstg	–40 to +150	°C

* : V_{DD}=25V, L=2mH, I_D=7A, unclamped, R_G=50Ω, see Fig. E on page 15.

Electrical characteristics (Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	200			V	I_D=100μA, V_{GS}=0V
I_{GSS}			±100	nA	V_{GS}=±20V
I_{DSS}			100	μA	V_{DS}=200V, V_{GS}=0V
V_{TH}	1.0		2.0	V	V_{DS}=10V, I_D=250μA
Re(yfs)	4	7		S	V_{DS}=10V, I_D=3.5A
$R_{DS(ON)}$		280	350	mΩ	V_{GS}=10V, I_D=3.5A
		320	480	mΩ	V_{GS}=4V, I_D=3.5A
Ciss		420		pF	V_{DS}=10V,
Coss		210		pF	f=1.0MHz,
Crss		90		pF	V_{GS}=0V
td(on)		16		ns	I_D=3.5A, V_{DD}≒100V,
tr		60		ns	R_L=28.6Ω,
td(off)		100		ns	V_{GS}=5V,
tf		70		ns	see Fig. 3 on page 16.
V_{SD}		1.0	1.5	V	I_{SD}=7A, V_{GS}=0V

■Equivalent circuit diagram



Characteristic curves