

# SLA5096

Nチャネル  
3相DCモータドライブ用

## 絶対最大定格

(Ta = 25 )

記号	定格	単位
V <sub>DSS</sub>	55	V
V <sub>GSS</sub>	± 20	A
I <sub>D</sub>	± 8	A
I <sub>D</sub> (pulse)	± 12 (PW 1ms, Du 25%)	V
E <sub>AS</sub>	45	mJ
I <sub>AS</sub>	8	A
dv/dt	5	V/ns
di/dt	150	A/μs
P <sub>T</sub>	5 (Ta = 25 , 全回路動作, No Fin)	W
	40 (Tc = 25 , 全回路動作, Fin)	
j-a	25 (接合 - 外気間, Ta = 25 , 全回路動作)	/W
j-c	3.13 (接合 - ケース間, Tc = 25 , 全回路動作)	/W
V <sub>ISO</sub>	1000 (Fin - リード端子間, AC)	V <sub>rms</sub>
T <sub>ch</sub>	150	
T <sub>stg</sub>	- 40 ~ + 150	

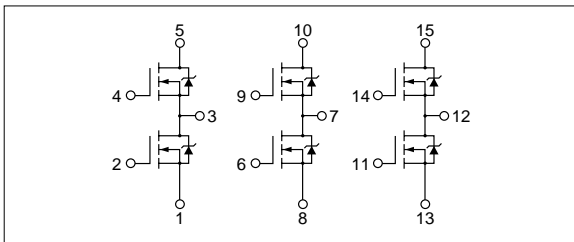
: V<sub>DD</sub> = 25V, L = 10mH, I<sub>D</sub> = 3A, unclamped

## 電気的特性

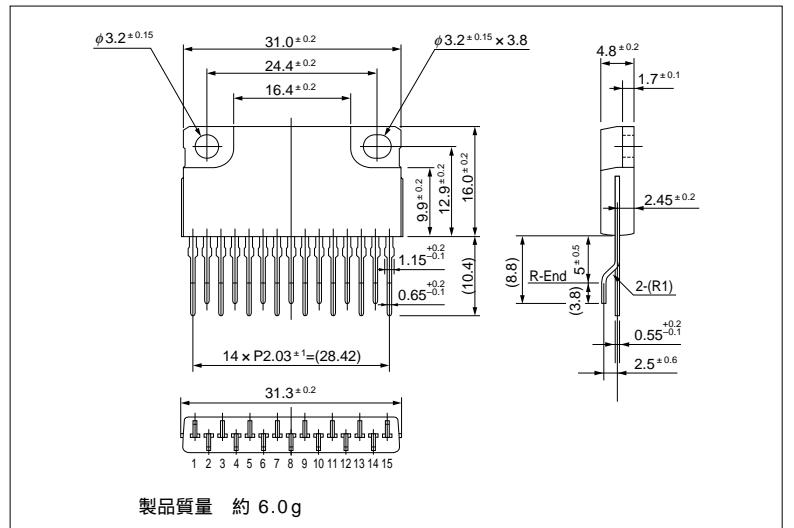
(Ta = 25 )

記号	規格値			単位	条件
	min	typ	max		
V <sub>(BR)DSS</sub>	55			V	I <sub>D</sub> = 100 μA, V <sub>GS</sub> = 0V
I <sub>GSS</sub>			± 100	nA	V <sub>GS</sub> = ± 20V
I <sub>DSS</sub>			100	μA	V <sub>DS</sub> = 55V, V <sub>GS</sub> = 0V
V <sub>TH</sub>	1.5		2.5	V	V <sub>DS</sub> = 10V, I <sub>D</sub> = 250 μA
R <sub>θ(jc)</sub>	4	7.5		S	V <sub>DS</sub> = 10V, I <sub>D</sub> = 4A
R <sub>Dθ(on)</sub>		80	120	m	V <sub>GS</sub> = 4V, I <sub>D</sub> = 4A
		60	80	m	V <sub>GS</sub> = 10V, I <sub>D</sub> = 4A
C <sub>iss</sub>		400		pF	V <sub>DS</sub> = 10V
C <sub>oss</sub>		185		pF	f = 1.0MHz
C <sub>rss</sub>		45		pF	V <sub>GS</sub> = 0V
t <sub>d(on)</sub>		17		ns	I <sub>D</sub> = 4A V <sub>DD</sub> = 30V R <sub>L</sub> = 7.5 V <sub>GS</sub> = 10V
t <sub>r</sub>		42		ns	
t <sub>d(off)</sub>		110		ns	
t <sub>f</sub>		75		ns	
V <sub>SD</sub>	0.85	1.5		V	
t <sub>rr</sub>		55		ns	I <sub>SD</sub> = 4A, V <sub>GS</sub> = 0V, di/dt = 100A/μs

## 等価回路図

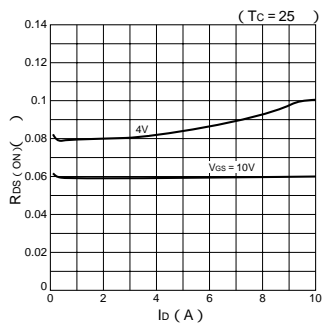


## 外形図

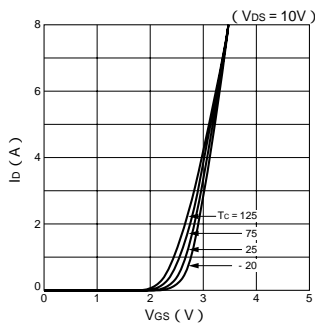


## 特性曲線

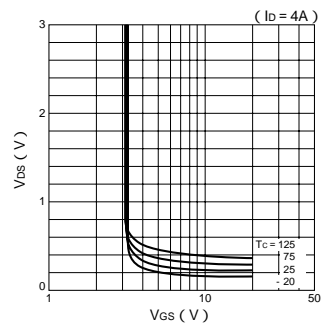
$R_{DS(ON)}$ - $I_D$ 特性 (代表例)



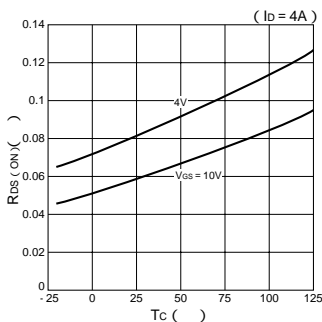
$I_D$ - $V_{GS}$ 特性 (代表例)



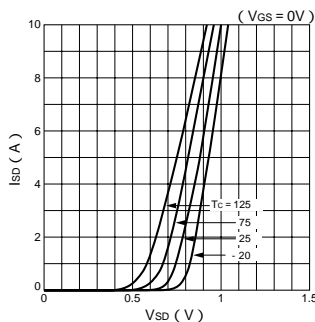
$V_{DS}$ - $V_{GS}$ 特性 (代表例)



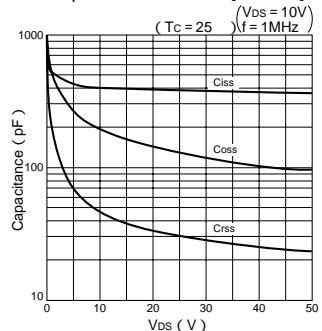
$R_{DS(ON)}$ - $T_C$ 特性 (代表例)



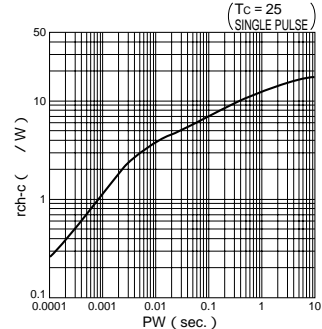
$I_{SD}$ - $V_{SD}$ 特性 (代表例)



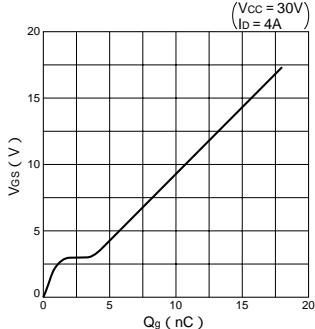
Capacitance- $V_{DS}$ 特性 (代表例)



rch-c-Pulse Width特性



$V_{GS}$ - $Q_g$ 特性 (代表例)



F/B ASO曲線

