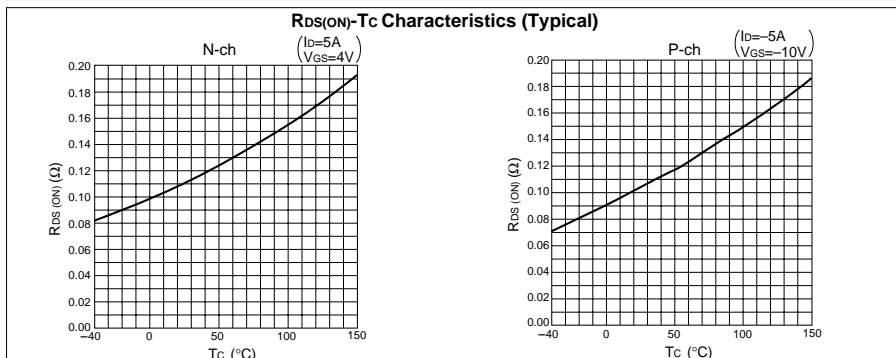
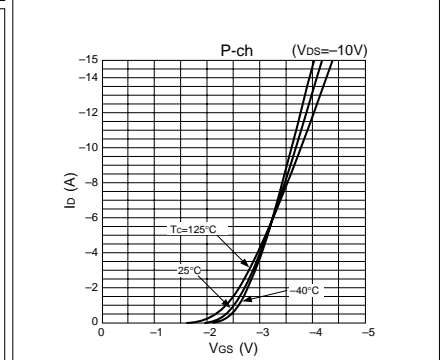
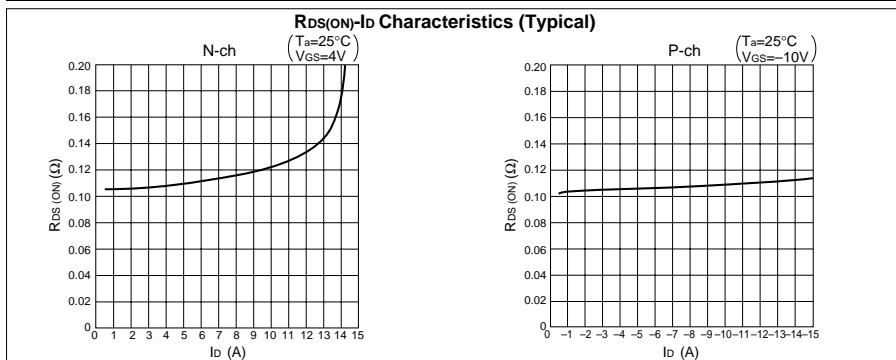
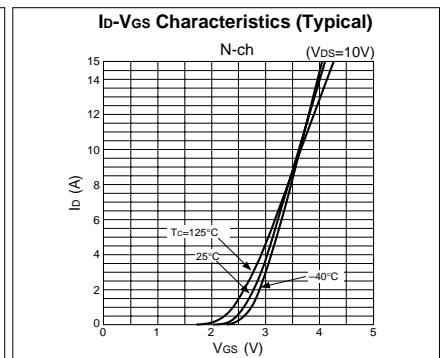
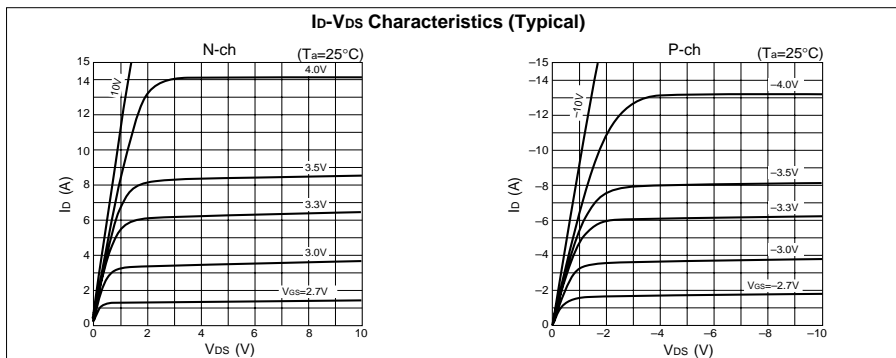
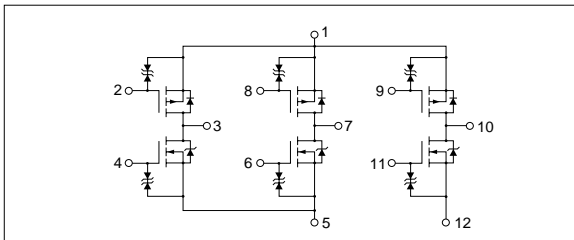


Absolute maximum ratings

($T_a=25^\circ\text{C}$)

Symbol	Ratings		Unit
	N channel	P channel	
V_{DSS}	60	-60	V
V_{GSS}	± 20	± 20	V
I_D	10	-6	A
$I_{D(pulse)}$	15 (PW \leq 1ms, duty \leq 25%)	-15 (PW \leq 1ms, duty \leq 25%)	A
P_T	5 ($T_a=25^\circ\text{C}$, with all circuits operating, without heatsink)		W
	40 ($T_c=25^\circ\text{C}$, with all circuits operating, with infinite heatsink)		W
θ_{j-a}	25 (Junction-Air, $T_a=25^\circ\text{C}$, with all circuits operating)		$^\circ\text{C/W}$
θ_{j-c}	3.125 (Junction-Case, $T_c=25^\circ\text{C}$, with all circuits operating)		$^\circ\text{C/W}$
V_{ISO}	1000 (Between fin and lead pin, AC)		Vrms
T_{ch}	150		$^\circ\text{C}$
T_{stg}	-40 to +150		$^\circ\text{C}$

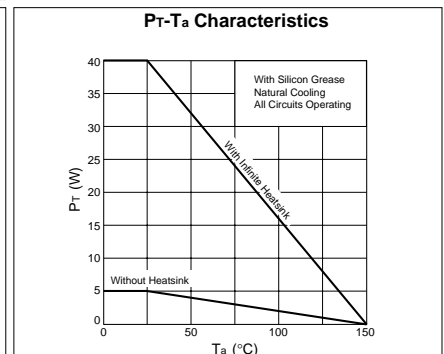
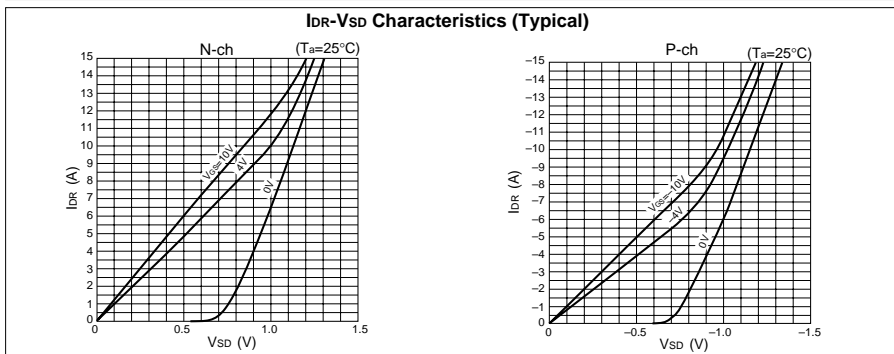
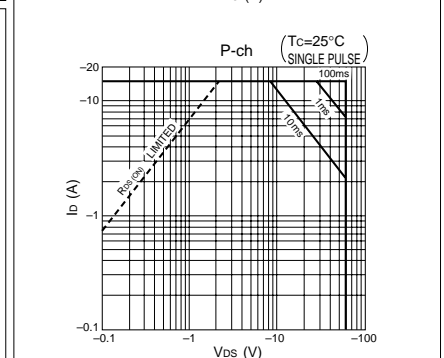
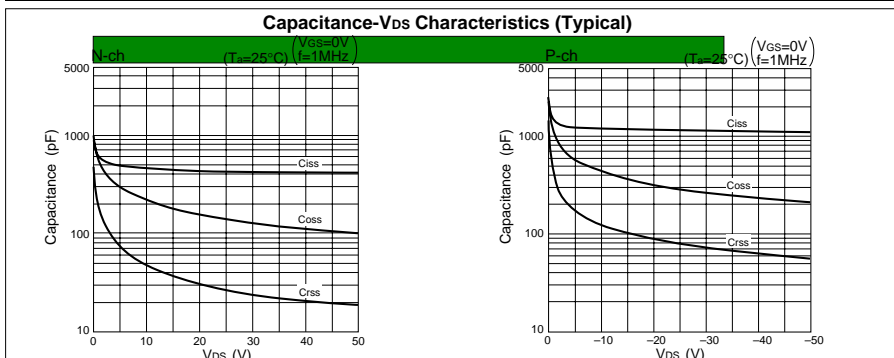
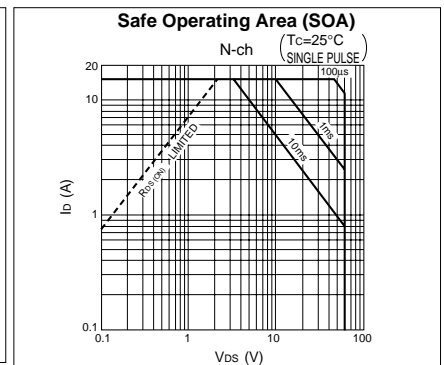
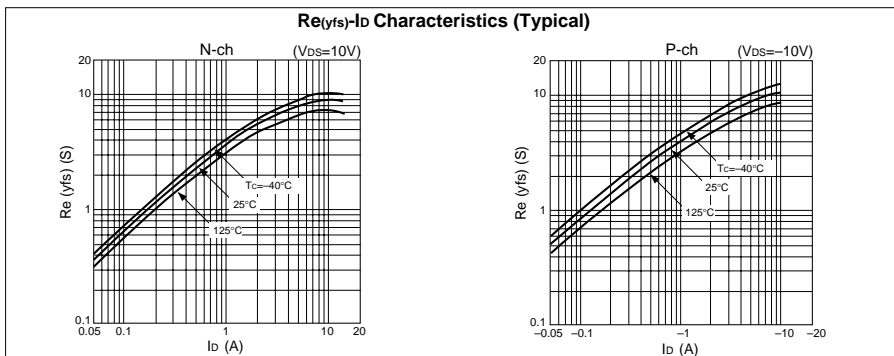
Equivalent circuit diagram



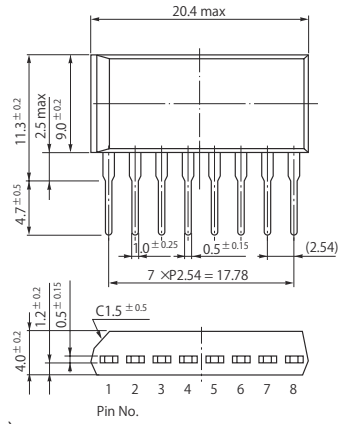
Electrical characteristics

(Ta=25°C)

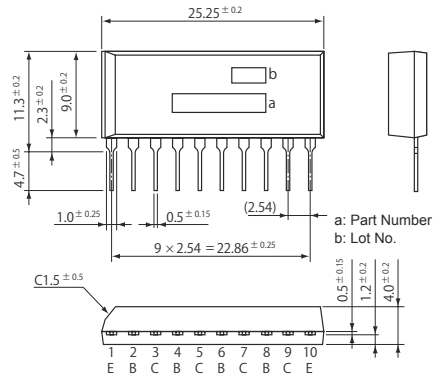
Symbol	N channel					P channel				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
V _{(BR)DSS}	60			V	I _D =100μA, V _{GS} =0V	-60			V	I _D =-100μA, V _{GS} =0V
I _{GSS}			±10	μA	V _{GS} =±20V			±10	μA	V _{GS} =±20V
I _{DSS}			100	μA	V _{DS} =60V, V _{GS} =0V			-100	μA	V _{DS} =-60V, V _{GS} =0V
V _{TH}	1.0		2.0	V	V _{DS} =10V, I _D =250μA	-1.0		-2.0	V	V _{DS} =-10V, I _D =-250μA
Re _(yfs)		8		S	V _{DS} =10V, I _D =5A		8.7		S	V _{DS} =-10V, I _D =-5A
R _{DS(ON)}			0.14	Ω	V _{GS} =4V, I _D =5A			0.14	Ω	V _{GS} =-10V, I _D =-5A
C _{iss}		460		pF	V _{DS} =10V, f=1.0MHz, V _{GS} =0V		1200		pF	V _{DS} =-10V, f=1.0MHz, V _{GS} =0V
C _{oss}		225		pF			440		pF	
C _{rss}		50		pF			120		pF	
td _(on)		25		ns	I _D =5A, V _{DD} =20V, R _L =4Ω, V _{GS} =5V, see Fig. 3 on page 16.		50		ns	I _D =-5A, V _{DD} =20V, R _L =4Ω, V _{GS} =-5V see Fig. 4 on page 16.
t _r		110		ns			170		ns	
td _(off)		90		ns			180		ns	
t _f		55		ns			100		ns	
V _{SD}		1.15		V		I _{SD} =10A, V _{GS} =0V		-1.25		
t _{rr}		75		ns	I _{SD} =5A, V _{GS} =0V di/dt=100A/μs		100		ns	I _{SD} =-5A, V _{GS} =0V di/dt=100A/μs



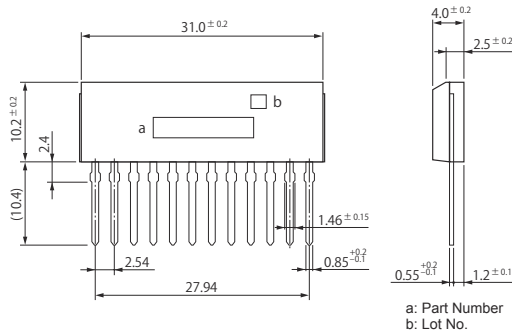
• SIP 8 (STA8Pin)



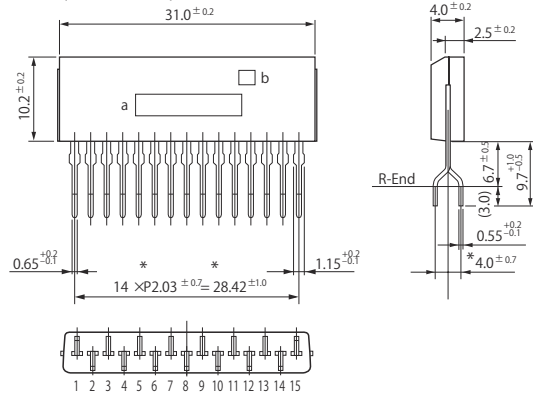
• SIP 10 (STA10Pin)



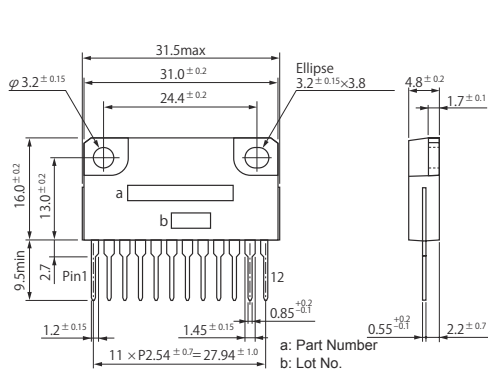
• SIP 12 (SMA12Pin)



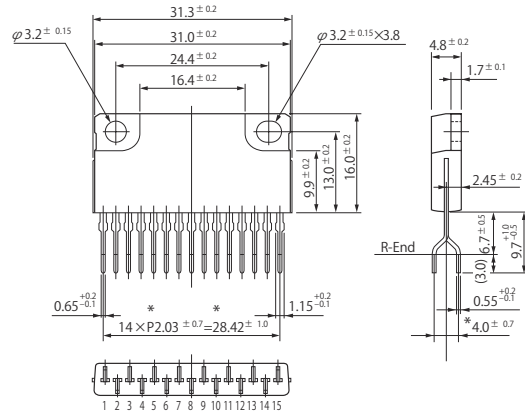
• SIP 15 (SMA15Pin)



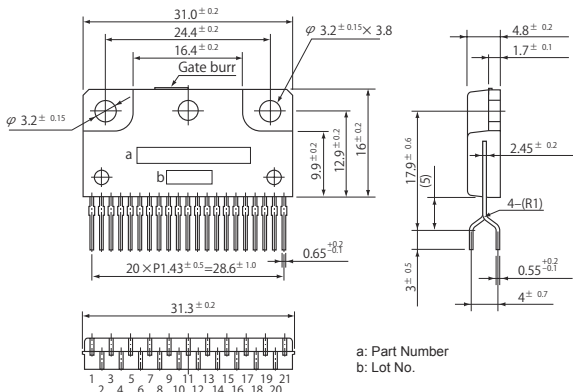
• SIP 12 with Fin (SLA12Pin)



• SIP 15 with Fin (SLA15Pin)



• SIP 21 with Fin (SLA21Pin)



(Unit:mm)