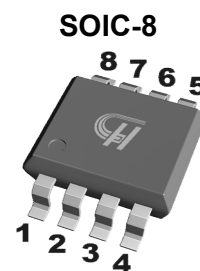


SOIC-8 Plastic-Encapsulate Three-terminal Negative Voltage Regulators

Features

- * Output Current : $I_O = -100\text{mA}$
- * Output Voltage : $V_O = -5\text{V}$
- * Input Voltage : $V_{IN} = -30\text{V}$
- * Thermal Overload Protection
- * Short Circuit Current Limiting
- * SOIC-8 Package



PIN	Name
1	VOUT
2,3,6,7	VIN
5	GND
4, 8	NC

Applications

- * TV Board
- * Air Conditioner
- * Charging Device

Description

The HCR79L05A is fixed voltage monolithic integrated circuit voltage three-terminal negative regulators are suitable for applications that required supply up to -100mA .

Package Marking And Ordering Information

Device	Marking	Device Package	Quantity
HCR79L05A/M8TR	HCR79L05A	SOIC-8	4000pcs, Tape&Reel

ABSOLUTE MAXIMUM RATINGS

($T_J = 25^\circ\text{C}$ Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Limit	Unit
Max. Input Voltage	V_{IN}	-30	V
Output Current	I_O	-100	mA
Continuous Total Dissipation	P_D	2.0	W
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	156.3	$^\circ\text{C/W}$
Junction Temperature Range	T_J	+150	$^\circ\text{C}$
Operating Temperature Range	T_{OPR}	-40 ~ +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^\circ\text{C}$

SOIC-8 Plastic-Encapsulate Three-terminal Negative Voltage Regulators

Electrical Characteristics at Specified Virtual Jinction Temperature

($V_{IN} = -10V$, $I_o = -40mA$, $C_i = 0.33\mu F$, $C_o = 0.1\mu F$, $T_a = 25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ.	Max	Unit
Output Voltage	V_o	$T_J = 25^\circ C$	-4.8	-5.0	-5.2	V
		$-7V \leq V_{IN} \leq -20V$, $I_o = 1mA \sim 40mA$,	-4.75	-5.0	-5.25	V
		$I_o = 1mA \sim 70mA$, $T_J = 0^\circ C \sim +125^\circ C$	-4.75	-5.0	-5.25	V
Load Regulation	ΔV_o	$I_o = 1mA \sim 100mA$, $T_J = 25^\circ C$	-	20	60	mV
		$I_o = 1mA \sim 40mA$, $T_J = 25^\circ C$	-	10	30	mV
Line Regulation	ΔV_o	$-7V \leq V_{IN} \leq -20V$, $T_J = 25^\circ C$	-	15	150	mV
		$-8V \leq V_{IN} \leq -20V$, $T_J = 25^\circ C$	-	12	100	mV
Quiescent Current	I_Q	$T_J = 25^\circ C$	-	-	6.0	mA
Quiescent Current Change	ΔI_Q	$-8V \leq V_{IN} \leq -20V$, $T = 0^\circ C \sim +125^\circ C$	-	-	1.5	mA
		$1mA \leq I_i \leq 40mA$, $T = 0^\circ C \sim +125^\circ C$	-	-	0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	-	40	-	$\mu V/V_o$
Ripple Rejection	RR	$-8V \leq V_i \leq -18V$, $f = 120Hz$, $T = 0^\circ C \sim +125^\circ C$	41	49	-	dB
Dropout Voltage	V_d		-	1.7	-	V

Typical Application Circuit

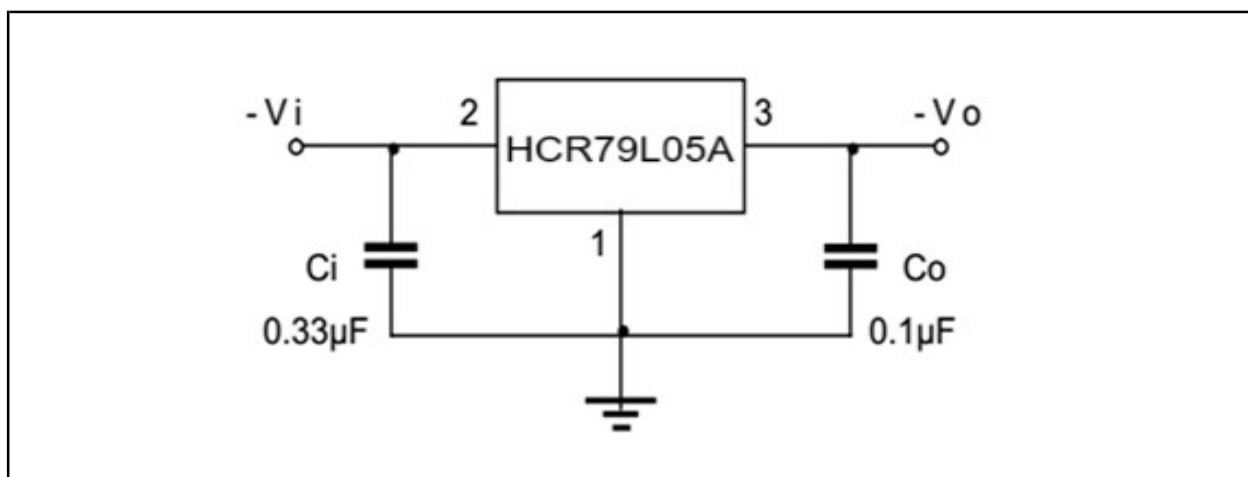
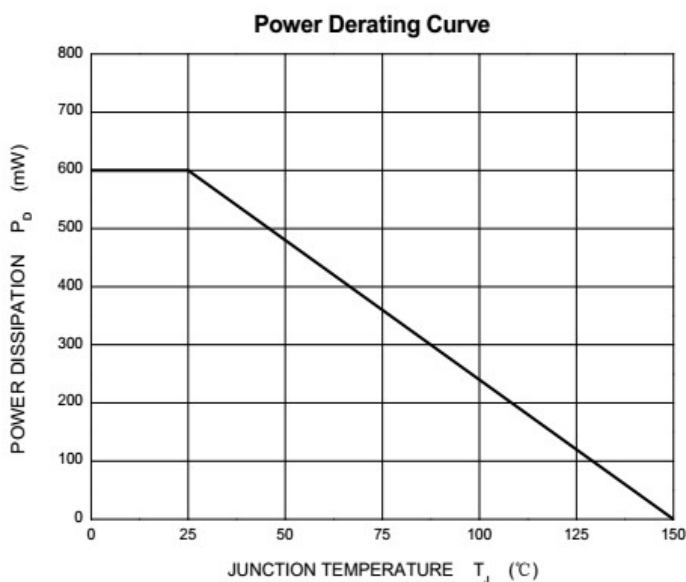
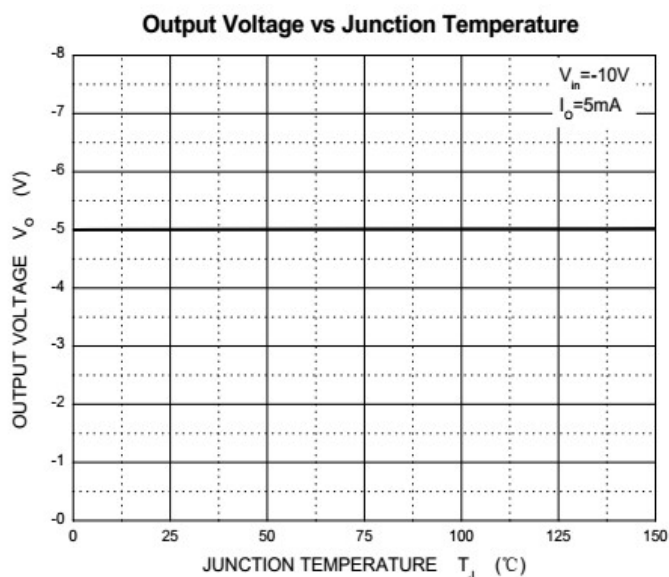
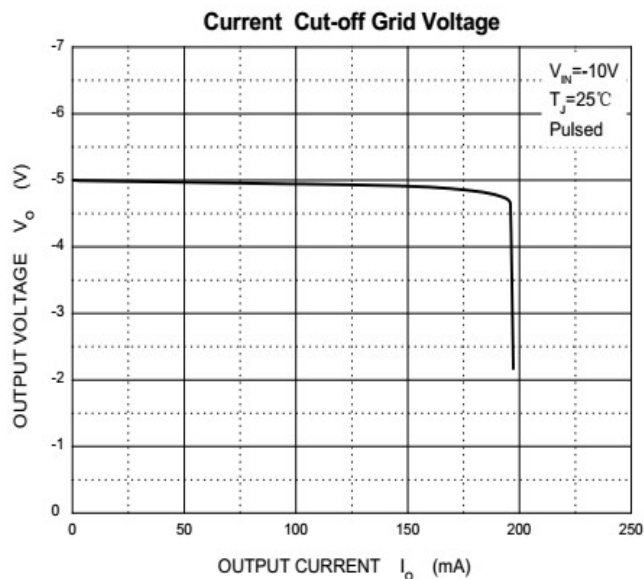
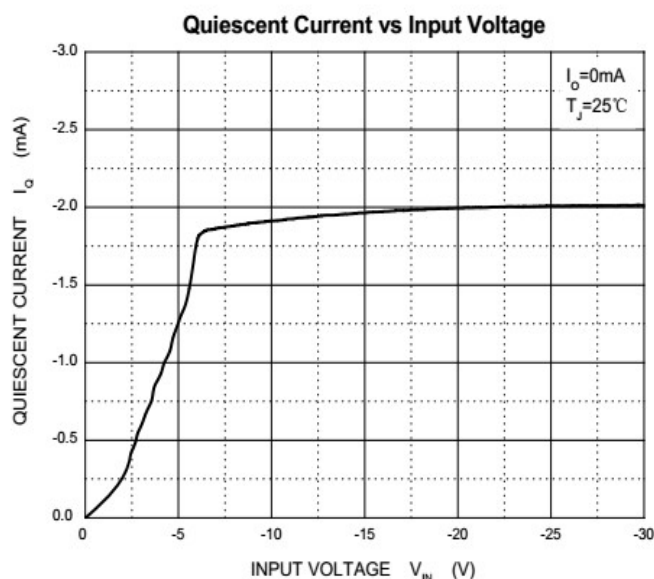
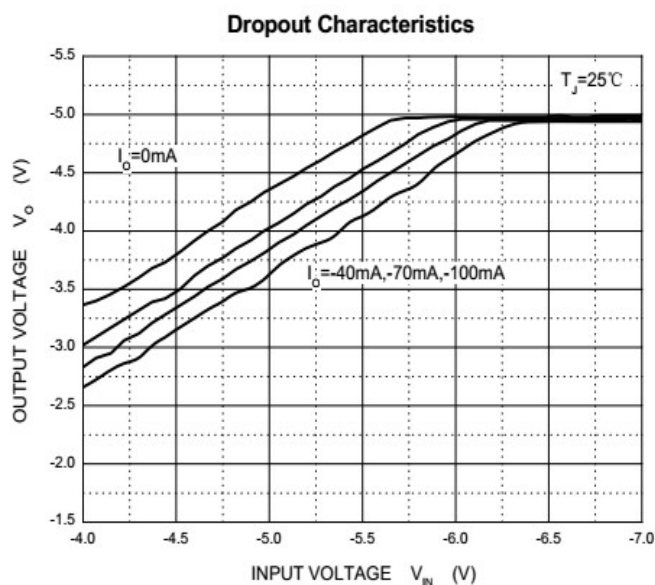
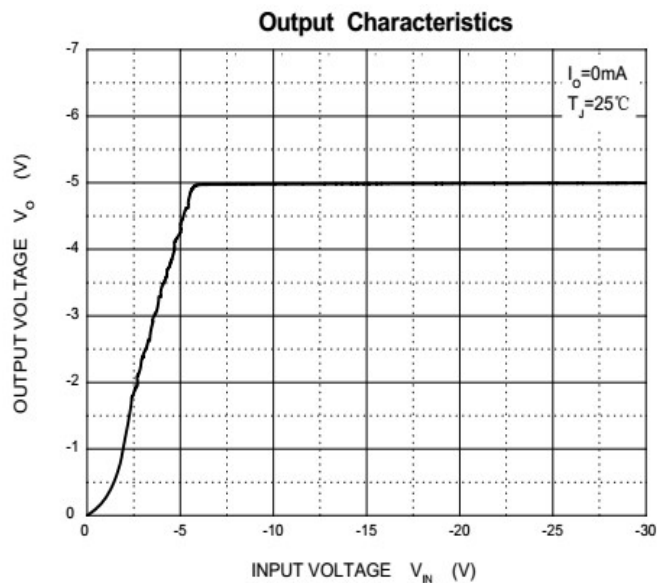
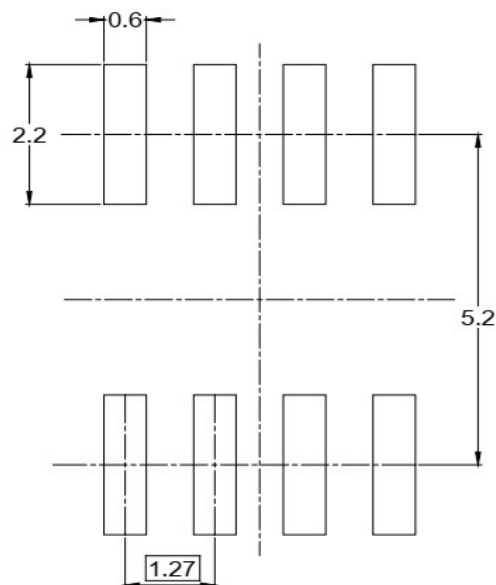
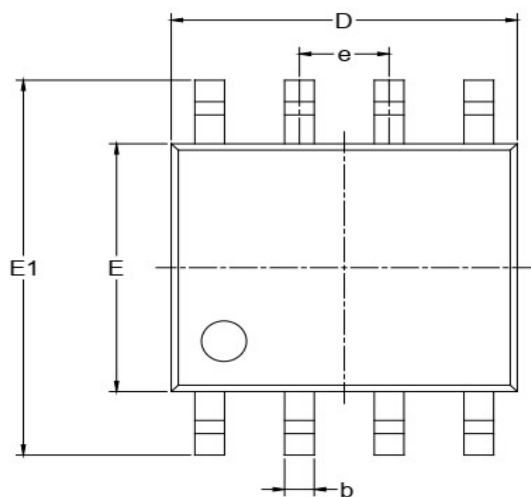
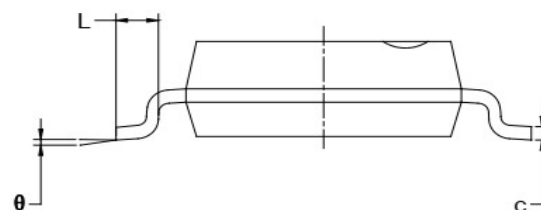
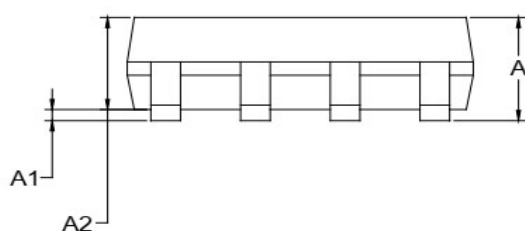


Figure 1. Typical Application Circuit of HCR79L05A

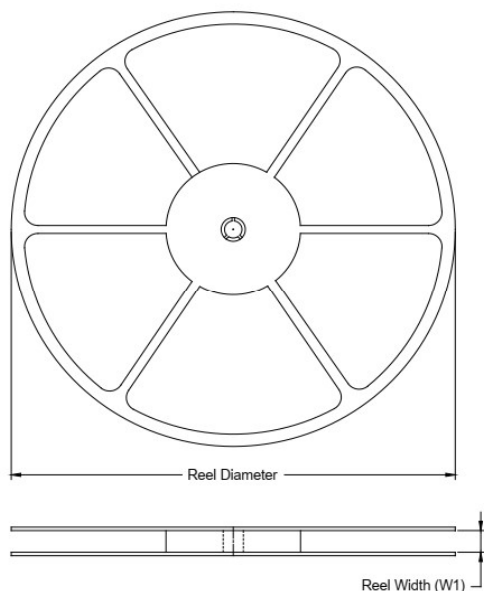
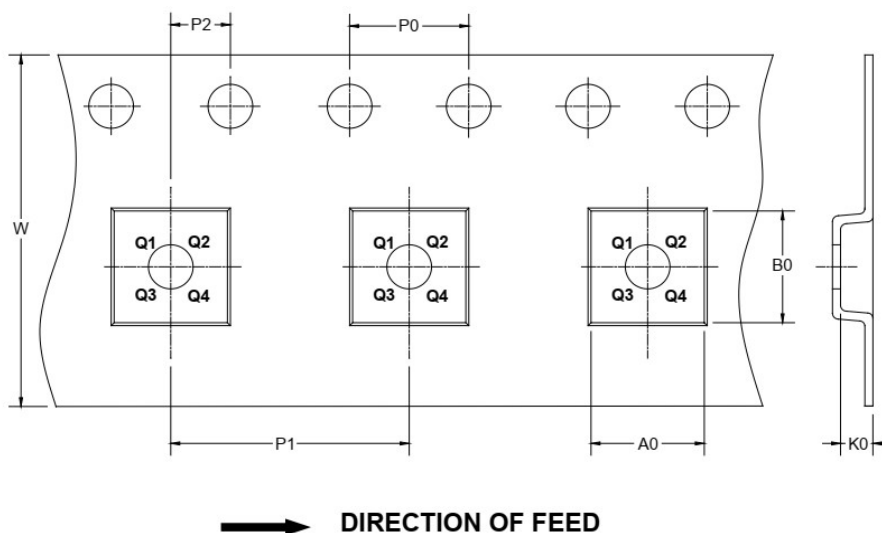
SOIC-8 Plastic-Encapsulate Three-terminal Negative Voltage Regulators

Typical Characteristics (T_J = 25°C unless otherwise noted)



SOIC-8 Plastic-Encapsulate Three-terminal Negative Voltage Regulators
Outline Dimensions
M8 :SOIC-8 Package

RECOMMENDED LAND PATTERN (Unit: mm)


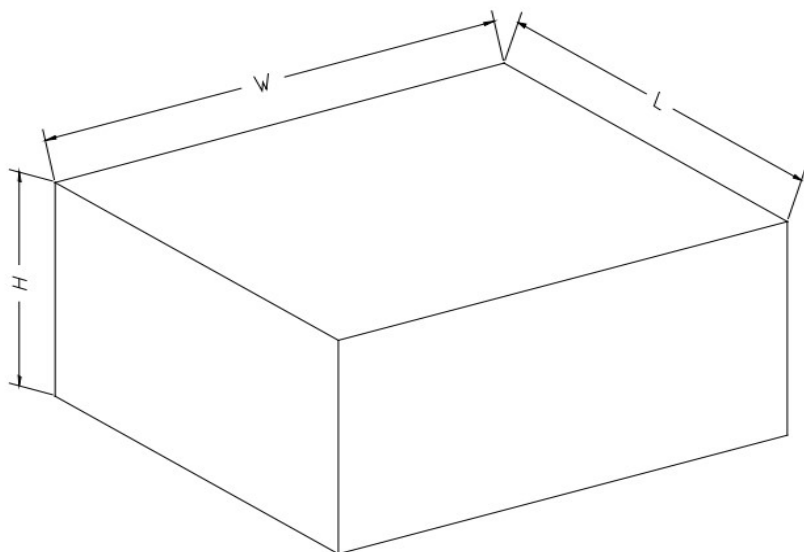
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	MIN	MAX	MIN	MAX
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.27 BSC		0.050 BSC	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

SOIC-8 Plastic-Encapsulate Three-terminal Negative Voltage Regulators
TAPE AND REEL INFORMATION
REEL DIMENSIONS

TAPE DIMENSIONS


NOTE: The picture is only for reference. Please make the object as the standard.

KEY PARAMETER LIST OF TAPE AND REEL

Package Type	Reel Diameter	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	W (mm)	Pin1 Quadrant
SOIC-8	13"	12.4	6.40	5.40	2.10	4.0	8.0	2.0	12.0	Q1

SOIC-8 Plastic-Encapsulate Three-terminal Negative Voltage Regulators**CARTON BOX DIMENSIONS**

NOTE: The picture is only for reference. Please make the object as the standard.

KEY PARAMETER LIST OF CARTON BOX

Reel Type	Length (mm)	Width (mm)	Height (mm)	Pizza/Carton
7" (Option)	368	227	224	8
7"	442	410	224	18
13"	386	280	370	5