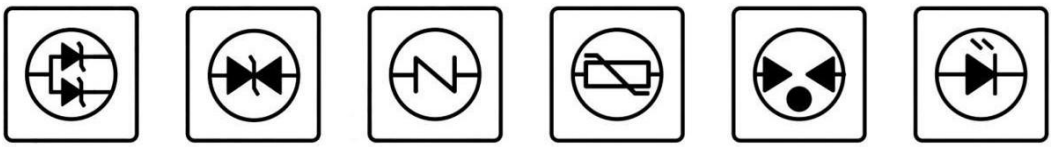
MSKSEMI 美森科
SEMICONDUCTOR



MC79LxxACDR2G(MS)/MC79LxxACHX

Product specification

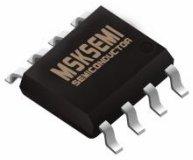
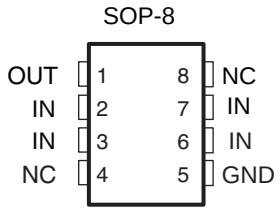
FEATURES

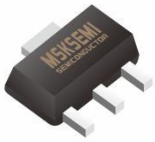
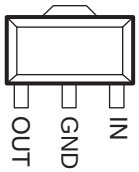
- Some kinds output voltage series
- Superior ripple rejection ratio for audio frequency
- Over current and over temperature protection

APPLICATIONS

- Three-terminal Negative Fixed Voltage Regulators

Reference News

Type No	SOP-8	PIN DESCRIPTION	MARKING
MC79LxxACDR2G(MS)			

Type No	SOT-89	PIN DESCRIPTION	MARKING
MC79LxxACHX			

ORDER INFORMATION

P/N	PKG	QTY
MC79L05ACDR2G(MS)	SOP8	2500PCS
MC79L06ACDR2G(MS)	SOP8	2500PCS
MC79L08ACDR2G(MS)	SOP8	2500PCS
MC79L09ACDR2G(MS)	SOP8	2500PCS
MC79L12ACDR2G(MS)	SOP8	2500PCS
MC79L15ACDR2G(MS)	SOP8	2500PCS

P/N	PKG	QTY
MC79L05ACHX	SOT-89	1000
MC79L06ACHX	SOT-89	1000
MC79L08ACHX	SOT-89	1000
MC79L09ACHX	SOT-89	1000
MC79L12ACHX	SOT-89	1000
MC79L15ACHX	SOT-89	1000

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value		Units
V_I	Input voltage	-35		V
P_D	Power dissipation	SOT89-3	500	mW
		SOP-8	750	
Topr	Operating ambient temperature	-20 to +85		℃
T_j,T_{stg}	Junction and Storage Temperature	-65 to +150		℃

ELECTRICAL CHARACTERISTICS

(V_{IN}=-10V,I_O=40mA,0℃<T_j<125℃,C_{IN}=0.33μF,C_L=0.1μF,unless otherwise specified)

Parameter	Symbol	Test conditions	MC79L05AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	T_j=25℃ V_{IN}=-10V ,1.0 mA ≤I_O≤70mA	-4.8 -4.75	-5.0	-5.2 -5.25	V
Load regulation	ΔV_{OLOAD}	T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 100 mA T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 40 mA		20 10	60 30	mV
Line regulation	ΔV_{OLINE}	T_j=25℃, -20V≤V_i≤-7V T_j=25℃, -20V≤V_i≤-8V		15 12	150 100	mV
Bias current		T_j=25℃		3.8	6.0	mA
Bial current change		T_j=25℃, -20V≤V_i≤-8V 1.0mA≤I_O≤40mA			1.5 0.1	mA
Output noise voltage		T_j=25℃ f=10Hz-100Hz		40		μV
Output short circuit current	I_{OS}	T_j=25℃		300		mA

ELECTRICAL CHARACTERISTICS

(V_{IN} = –11 V, I_{OUT} = 40 mA, 0°C ≤ Tj ≤ 125°C, C $_{IN}$ = 0.33μF, C_L = 0.1μF,unless otherwise specified)

Parameter	Symbol	Test conditions	MC79L06AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	T_j=25℃ V_{IN}=-10V ,1.0 mA ≤I_O≤70mA	-5.75 -5.7	-6.0	-6.25 -6.3	V
Load regulation	ΔV_{OLOAD}	T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 100 mA T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 40 mA		21 11	80 40	mV
Line regulation	ΔV_{OLINE}	T_j=25℃, -20V≤V_i≤-8V T_j=25℃, -20V≤V_i≤-9V		20 12	170 100	mV
Bias current		T_j=25℃		3.8	6.0	mA
Bial current change		T_j=25℃, -20V≤V_i≤-9V 1.0mA≤I_O≤40mA			1.5 0.1	mA
Output noise voltage		T_j=25℃ f=10Hz-100Hz		44		μV
Output short circuit current	I_{OS}	T_j=25℃		300		mA

ELECTRICAL CHARACTERISTICS

(V_{IN} = –14 V, I_{OUT} = 40 mA, 0°C ≤ Tj ≤ 125°C, C_{IN} = 0.33μF, C_L = 0.1μF,unless otherwise specified)

Parameter	Symbol	Test conditions	MC79L08AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	T_j=25℃ V_{IN}=-10V ,1.0 mA ≤I_O≤70mA	-7.7 -7.6	-8.0	-8.3 -6.4	V
Load regulation	ΔV_{OLOAD}	T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 100 mA T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 40 mA		30 15	100 50	mV
Line regulation	ΔV_{OLINE}	T_j=25℃, -23V≤V_i≤-10.5V T_j=25℃, -23V≤V_i≤-11V		42 36	200 150	mV
Bias current		T_j=25℃			6.0	mA
Bial current change		T_j=25℃, -20V≤V_i≤-11V 1.0mA≤I_O≤40mA			1.5 0.1	mA
Output noise voltage		T_j=25℃ f=10Hz-100Hz		54		μV
Output short circuit current	I_{OS}	T_j=25℃		300		mA

ELECTRICAL CHARACTERISTICS

(V_{IN} = –15 V, I_{OUT} = 40 mA, 0°C ≤ Tj ≤ 125°C, C_{IN} = 0.33μF, C_L = 0.1μF,unless otherwise specified)

Parameter	Symbol	Test conditions	MC79L09AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	T_j=25℃ V_{IN}=-15V ,1.0 mA ≤I_O≤70mA	-8.64 -8.55	-9.0	-9.36 -9.45	V
Load regulation	ΔV_{OLOAD}	T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 100 mA T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 40 mA		30 15	100 50	mV
Line regulation	ΔV_{OLINE}	T_j=25℃, -24V≤V_i≤-12V T_j=25℃, -24V≤V_i≤-13V		45 40	170 125	mV
Bias current		T_j=25℃			6.2	mA
Bial current change		T_j=25℃, -20V≤V_i≤-13V 1.0mA≤I_O≤40mA			1.5 0.1	mA
Voltage drop	V_{DROP}	T_j=25℃		1.3		V
Output short circuit current	I_{OS}	T_j=25℃		270		mA

ELECTRICAL CHARACTERISTICS

(V_{IN} = –19 V, I_{OUT} = 40 mA, 0°C ≤ Tj ≤ 125°C, C_{IN} = 0.33μF, C_L = 0.1μF,unless otherwise specified)

Parameter	Symbol	Test conditions	MC79L12AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	T_j=25℃ V_{IN}=-19V ,1.0 mA ≤I_O≤70mA	-11.52 -11.40	-12	-12.48 -12.60	V
Load regulation	ΔV_{OLOAD}	T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 100 mA T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 40 mA		24 15	100 50	mV
Line regulation	ΔV_{OLINE}	T_j=25℃, -27V≤V_i≤-14V T_j=25℃, -27V≤V_i≤-16V		50 40	250 200	mV
Bias current		T_j=25℃			-6.5	mA
Bial current change		T_j=25℃, -27V≤V_i≤-16V 1.0mA≤I_O≤40mA			1.5 0.1	mA
Voltage drop	V_{DROP}	T_j=25℃		1.3		V
Output short circuit current	I_{OS}	T_j=25℃		250		mA

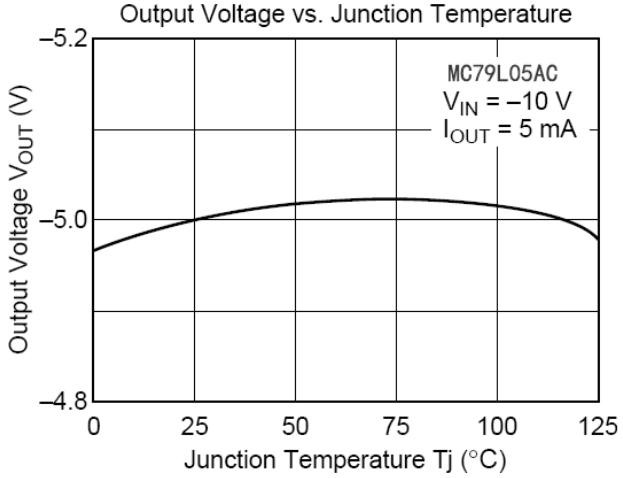
ELECTRICAL CHARACTERISTICS

(V_{IN} = –23 V, I_{OUT} = 40 mA, 0°C ≤ Tj ≤ 125°C, C_{IN} = 0.33μF, C_L = 0.1μF,unless otherwise specified)

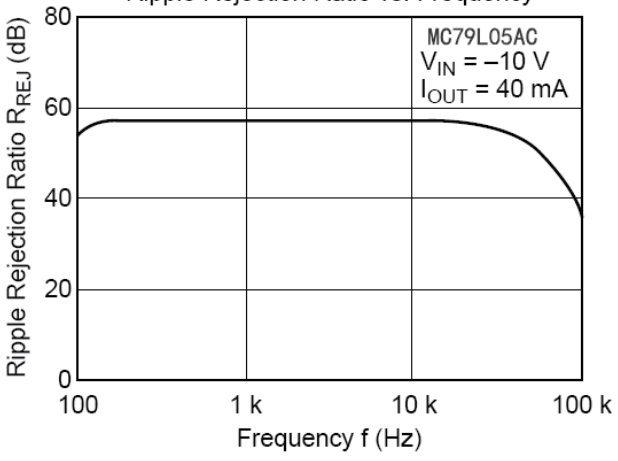
Parameter	Symbol	Test conditions	MC79L15AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	T_j=25℃ V_{IN}=-23V ,1.0 mA ≤I_O≤70mA	-14.4 -14.25	-15	-15.6 -15.75	V
Load regulation	ΔV_{OLOAD}	T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 100 mA T_j=25℃, 1.0 mA ≤ I_{OUT} ≤ 40 mA		25 15	150 75	mV
Line regulation	ΔV_{OLINE}	T_j=25℃, -30V≤V_i≤-17.5V T_j=25℃, -30V≤V_i≤-19V		65 50	300 250	mV
Bias current		T_j=25℃			-6.5	mA
Bial current change		T_j=25℃, -30V≤V_i≤-19V 1.0mA≤I_O≤40mA			1.5 0.1	mA
Voltage drop	V_{DROP}	T_j=25℃		1.3		V
Output short circuit current	I_{OS}	T_j=25℃		240		mA

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

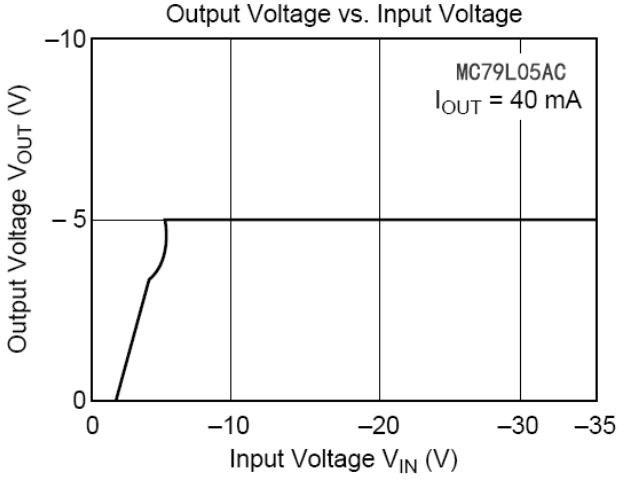
Output Voltage vs. Junction Temperature



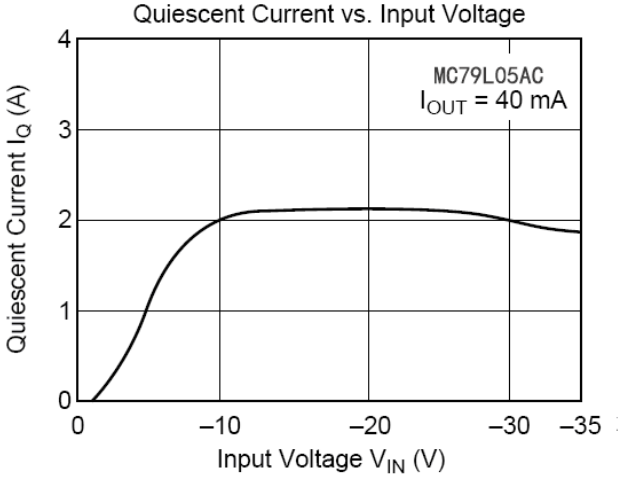
Ripple Rejection Ratio vs. Frequency



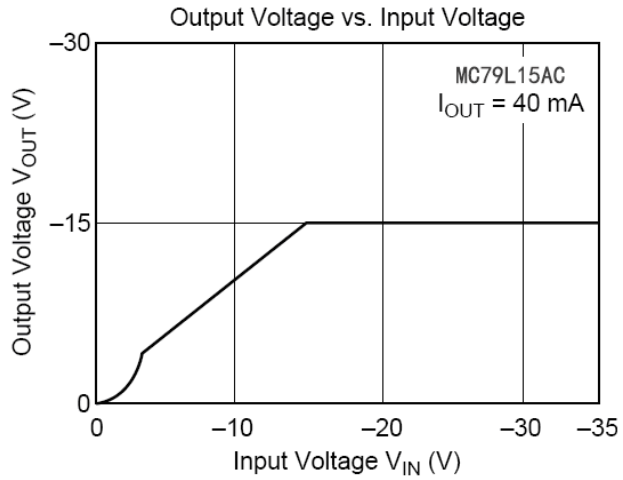
Output Voltage vs. Input Voltage



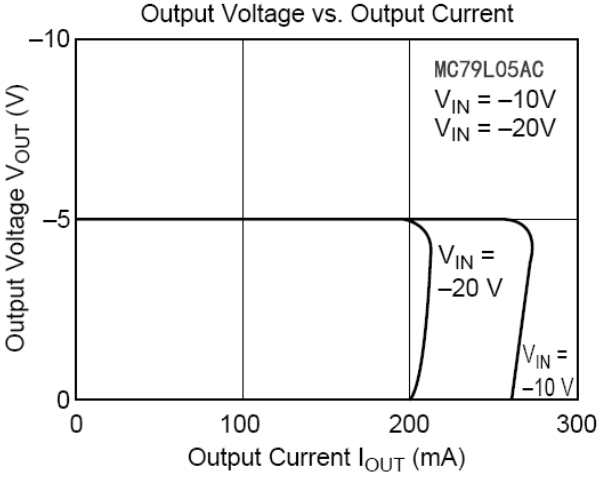
Quiescent Current vs. Input Voltage



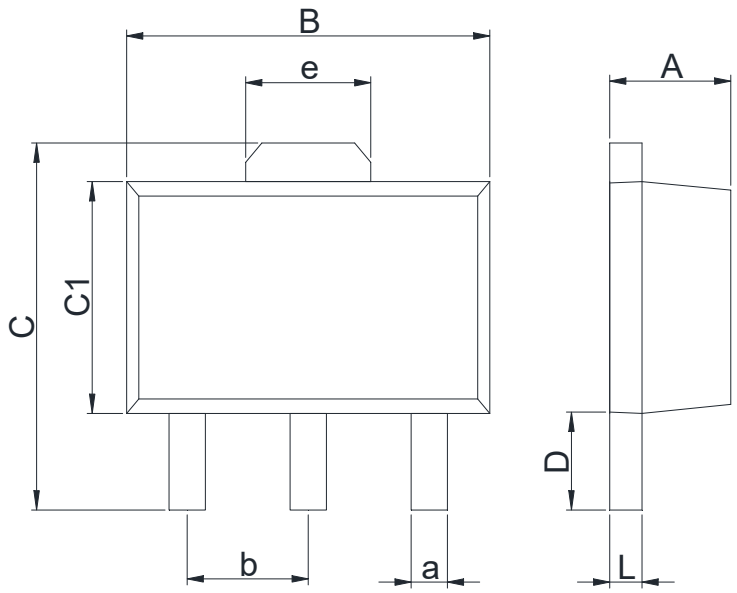
Output Voltage vs. Input Voltage



Output Voltage vs. Output Current



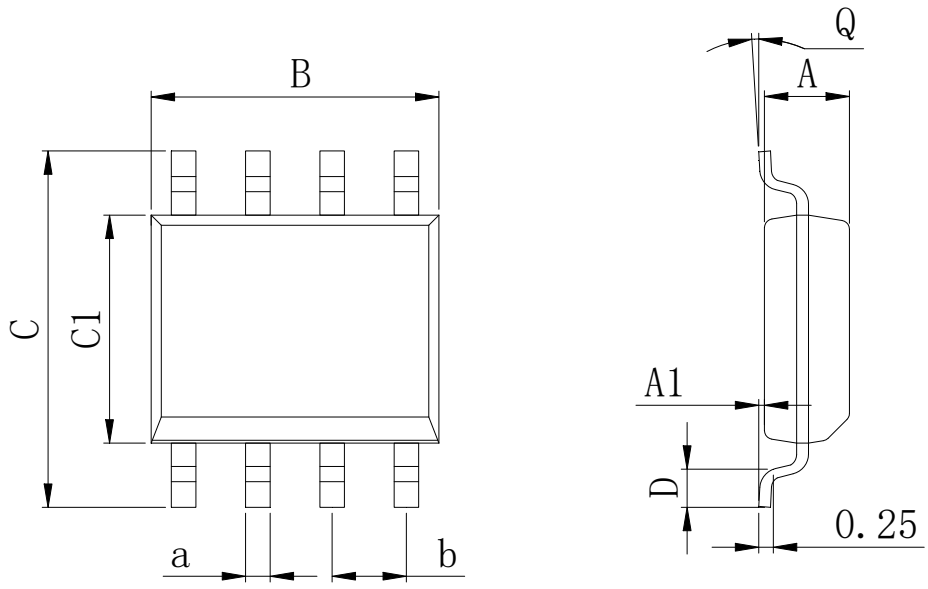
SOT89-3



Dimensions In Millimeters(SOT-89-3)									
Symbol:	A	B	C	C1	D	L	a	b	e
Min:	1.40	4.40	3.94	2.30	0.90	0.35	0.40	1.50	1.55
Max:	1.60	4.60	4.25	2.60	1.20	0.44	0.50	BSC	BSC

Physical Dimensions

SOP-8



Dimensions In Millimeters(SOP-8)									
Symbol:	A	A1	B	C	C1	D	Q	a	b
Min:	1.35	0.05	4.90	5.80	3.80	0.40	0°	0.35	1.27 BSC
Max:	1.55	0.20	5.10	6.20	4.00	0.80	8°	0.45	

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