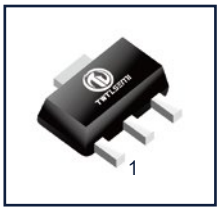
TL-79L06

SOT-89-3L LINEAR INTEGRATED CIRCUIT

DESCRIPTION

The UTC 79LXX family is monolithic fixed voltage regulator integrated circuit. They are suitable for applications that required supply current up to 100mA.



SOT-89-3L

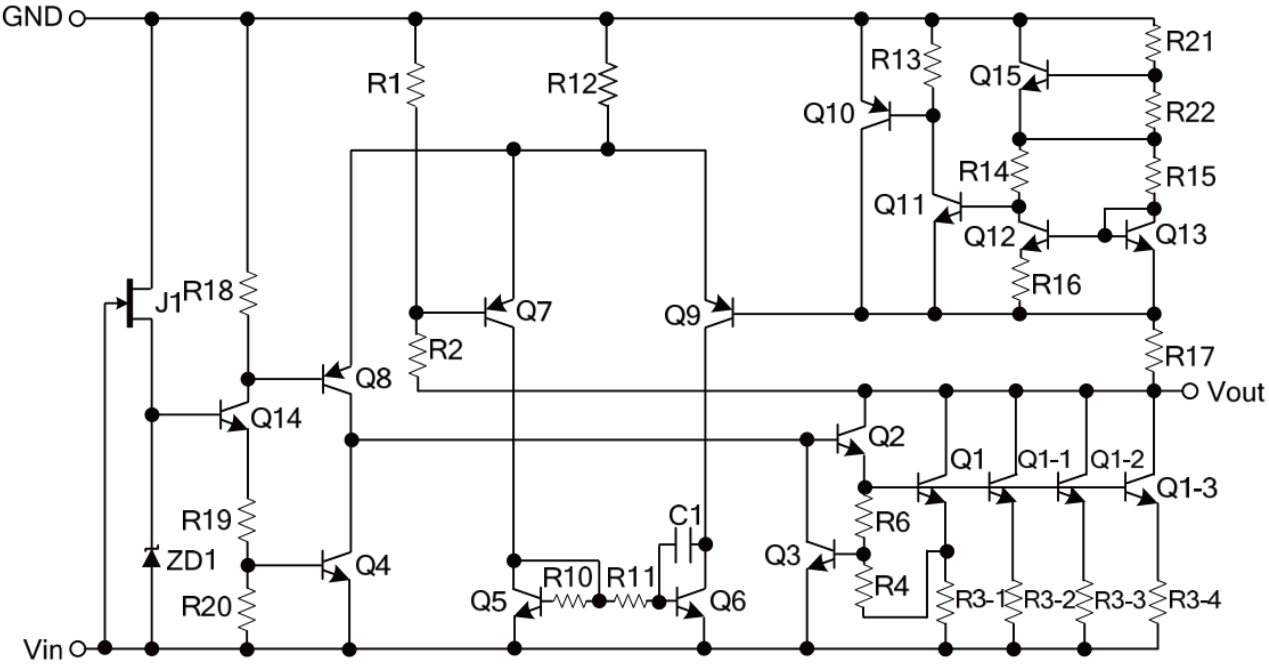
FEATURES

- Output current up to 100mA.
- Fixed output voltage of -5V, -6V, -8V, -9V, -10V, -12V, -15V, -18V and -24V available.
- Thermal overload shutdown protection.
- Short circuit current limiting.

Ordering information

Product ID	Pack	Output voltage	Marking	Qty(PCS)
79L06	SOT-89-3L	6.0V	79L06	1000

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	VALUE	UNIT
Input Voltage	V_{OUT}=-5 ~ -9V	V_{IN}	-30	V
	V_{OUT}=-12 ~ -15V		-35	V
	V_{OUT}=-18 ~ -24V		-35	V
Power Dissipation	SOT-89-3L	P_D	500	mW
Operating Junction Temperature		T_J	+150	℃
Operating Temperature		T_{OPR}	-40~ +125	℃
Storage Temperature		T_{STG}	-40 ~ +150	℃

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.Absolute maximum ratings are stress ratings only and functional device operation is not implied.

ABSOLUTE MAXIMUM RATINGS

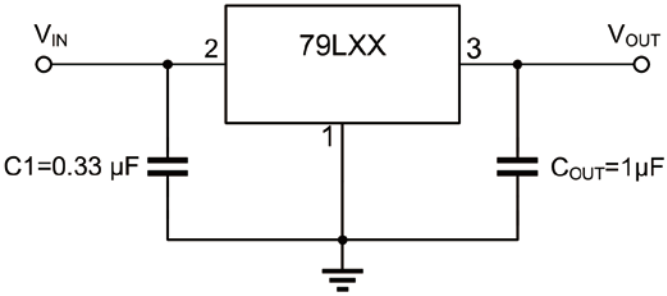
PARAMETER		SYMBOL	RATING	UNIT
Junction to Ambient	SOT-89-3L	$R_{\theta JA}$	200	℃/W
Junction to Case	SOT-89-3L	$R_{\theta JC}$	50	℃/W

ELECTRICAL CHARACTERISTICS

(T_J=25℃, C1=0.33μF, C_{OUT}=1μF, unless otherwise specified)

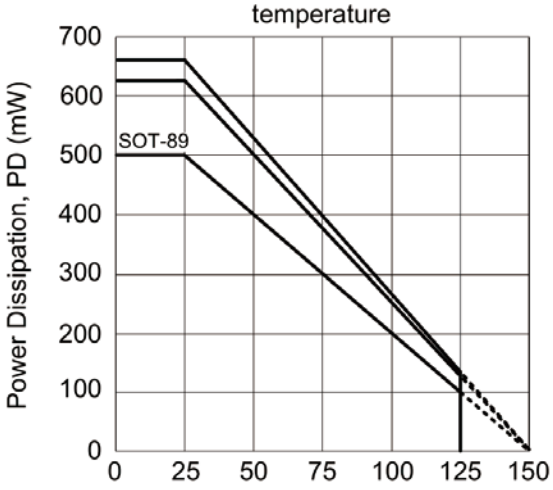
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Output Voltage	V_{OUT}	V_{IN}=-12V,I_{OUT}=40mA	-5.76	-6.0	-6.24	V
Line Regulation	$\frac{\Delta V_{OUT}}{\Delta V_{IN} \times V_{OUT}}$	V_{IN}=-8.5~-20V, I_{OUT}=40mA		15	150	mV
Load Regulation	$\frac{\Delta V_{OUT}}{\Delta I_{OUT} \times V_{OUT}}$	V_{IN}=-12V, I_{OUT}=1~100mA		7	60	mV
Quiescent current	I_Q	V_{IN}=-12V,I_{OUT}=40mA		3.5	6.0	mA
Ripple Rejection	RR	V_{IN}=-9~ -19V, I_{OUT}=40mA, e_{IN}=1VP-P ,f=120Hz	41	71		dB
Output Voltage Noise	eN	V_{IN}=-12V, I_{OUT}=40mA B_W=10Hz~100kH		120		μV

APPLICATION CIRCUIT

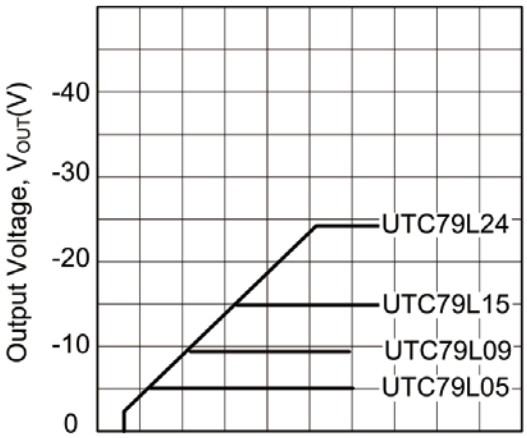


Typical Characteristics

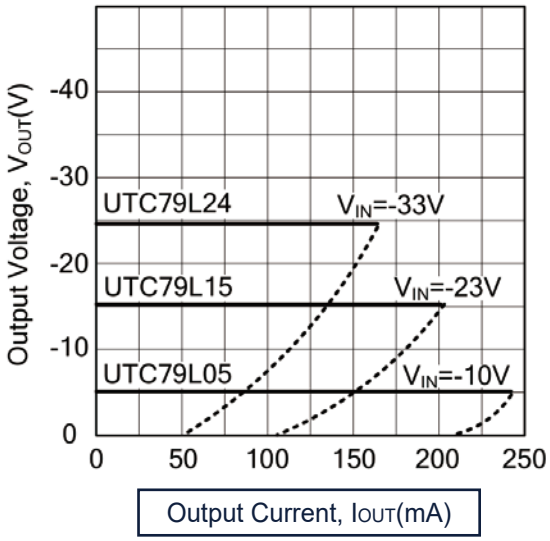
Power dissipation vs. ambient temperature



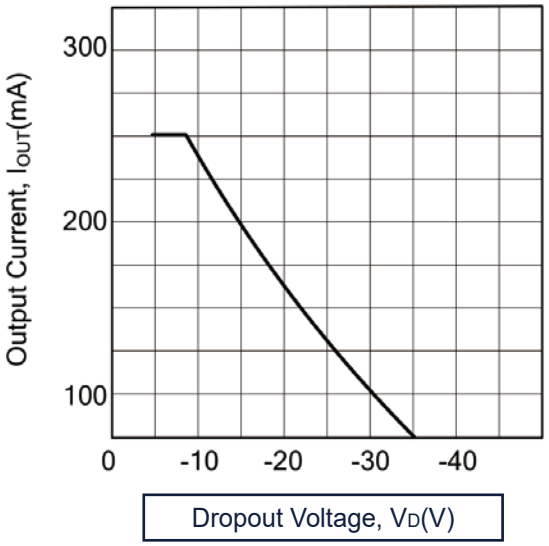
Input Voltage vs. Output Voltage



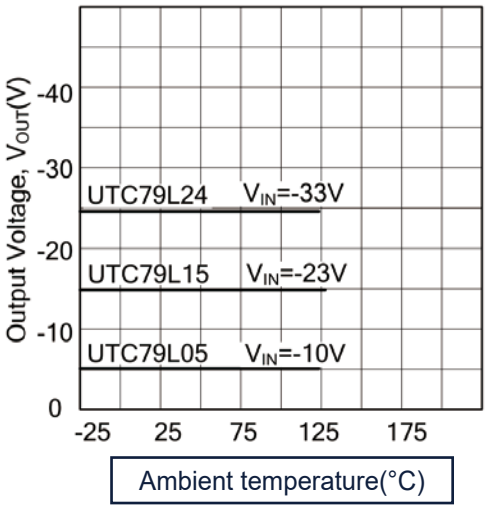
Load Characteristics (T_J=25°C)



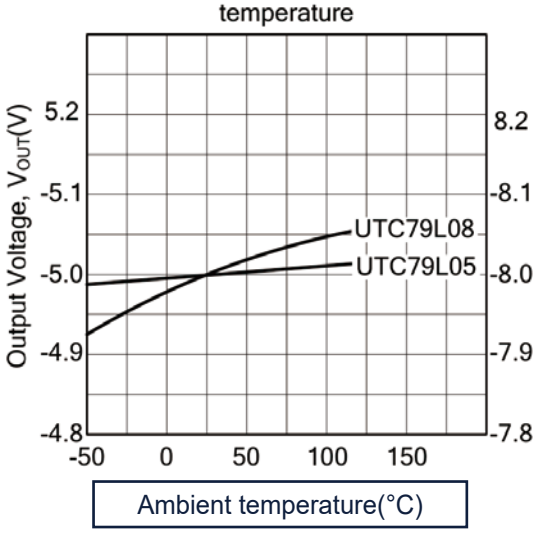
Short Circuit Current (T_J=25°C)



Output Voltage vs. Junction temperature

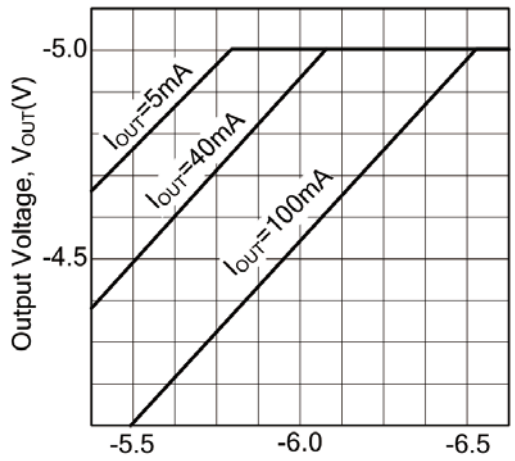


Output Voltage vs. ambient temperature

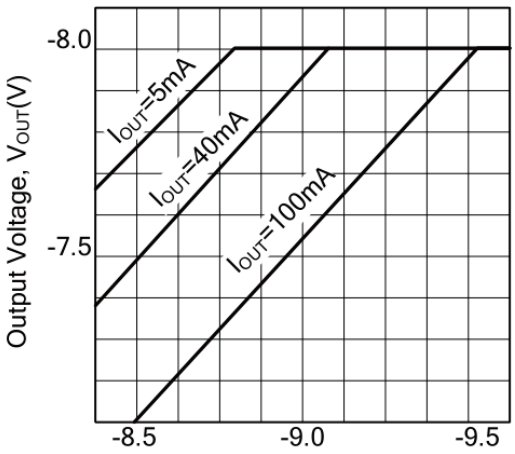


Typical Characteristics

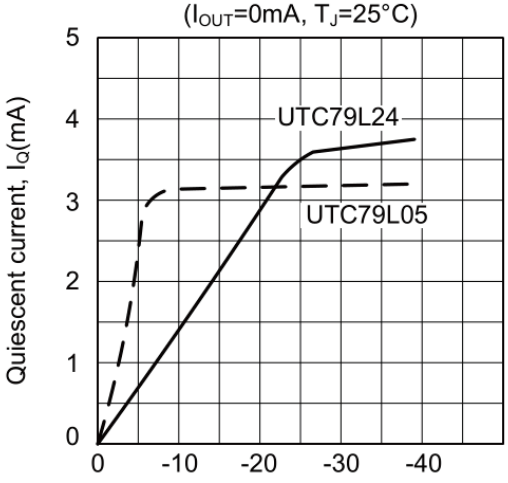
UTC79L05 Dropout Characteristics
(T_J=25°C)



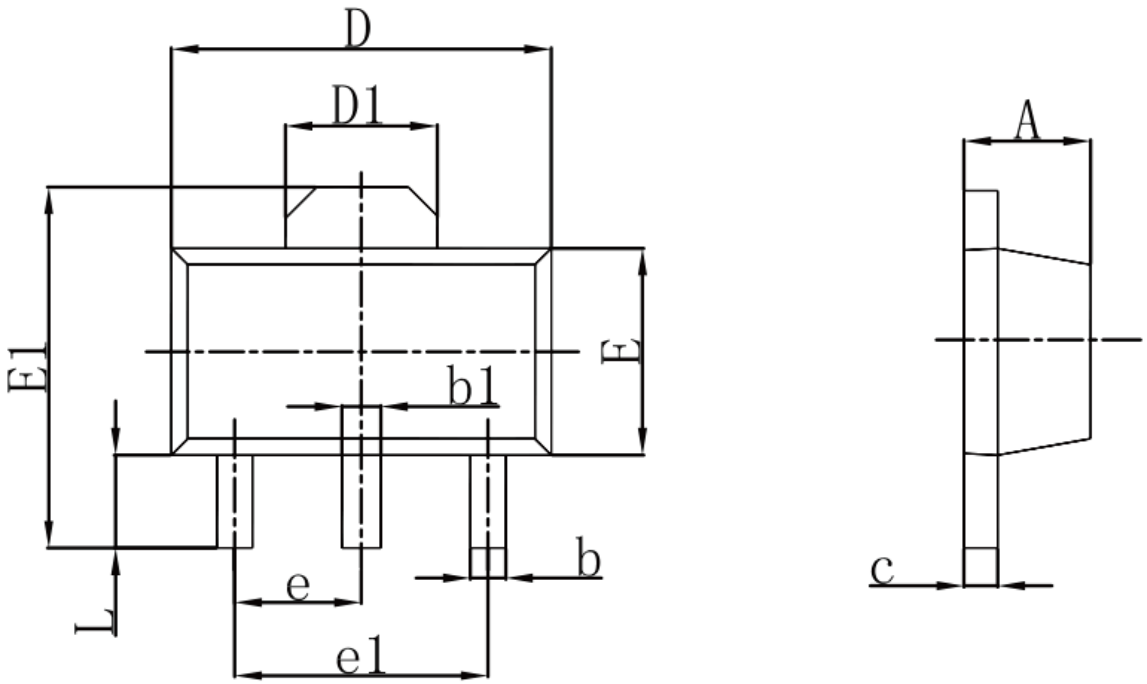
UTC79L08 Dropout Characteristics
(T_J=25°C)



Current vs. Input Voltage
(I_{OUT}=0mA, T_J=25°C)



SOT-89-3L Package Outline Dimensions



Symbol	Dimensions in Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047