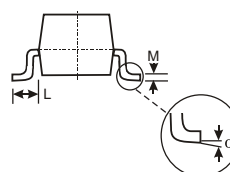
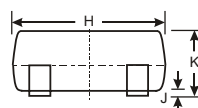
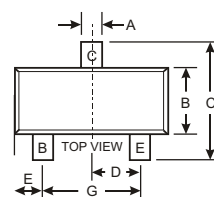


THREE-TERMINAL POSITIVE VOLTAGE REGULATOR

Features

- Input voltage: up to 30V.
- Output: 5V.
- Output current up to 100 mA, internal thermal overload protection and short-circuit limiting.



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

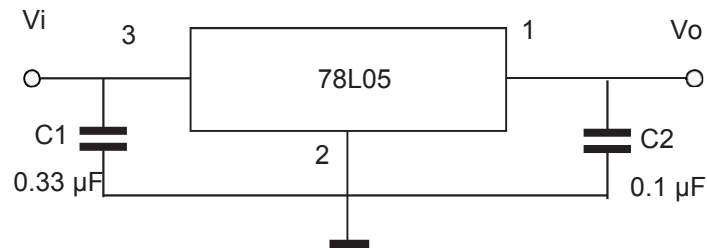
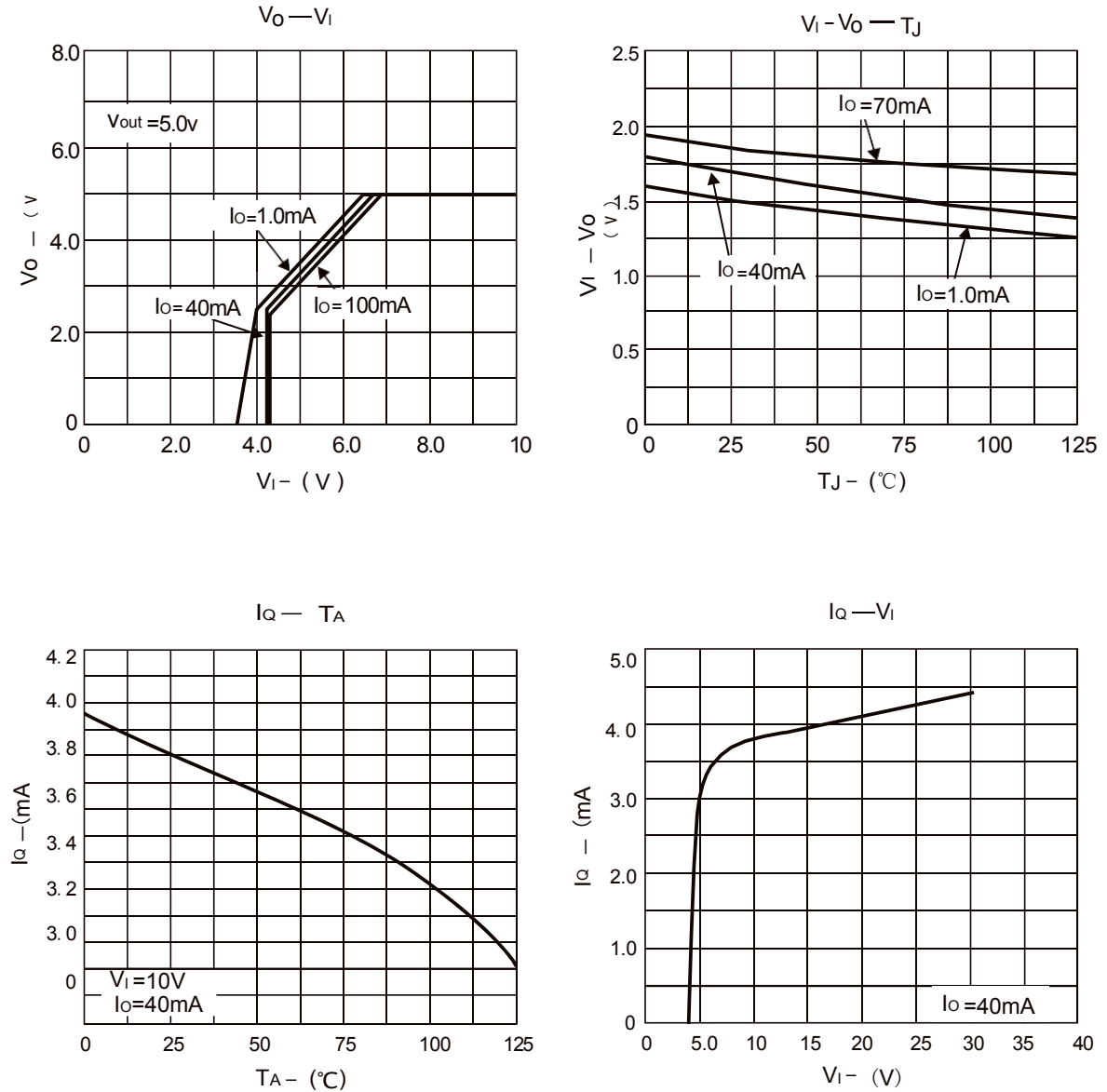
Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Output Current	I_O	100	mA
Junction Temperature	T_J	150	$^\circ\text{C}$
Operating Temperature Range	T_{OPR}	-40~125	$^\circ\text{C}$
Total Power Dissipation	P_D	0.5	W
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbols	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_O	$I_O = 40\text{mA}$ $T_J = 25^\circ\text{C}$	4.80	5.0	5.2	V
		$I_O = 1\text{mA to } 40\text{mA}$ $V_I = 7\text{V to } 20\text{V}$	4.75	5.0	5.25	V
		$I_O = 1\text{mA to } 70\text{mA}$ $V_I = 10\text{V}$	4.75	5.0	5.25	V
Line Regulation	ΔV_O	$V_I = 7\text{V to } 20\text{V}$ $T_J = 25^\circ\text{C}$		32	150	mV
		$V_I = 8\text{V to } 20\text{V}$ $T_J = 25^\circ\text{C}$		26	100	mV
Load Regulation	ΔV_O	$I_O = 1\text{mA to } 100\text{mA}$ $T_J = 25^\circ\text{C}$		15	60	mV
		$I_O = 1\text{mA to } 40\text{mA}$ $T_J = 25^\circ\text{C}$		8	30	mV
Ripple Rejection	RR	$V_I = 8\text{V to } 18\text{V}$ $T_J = 25^\circ\text{C}$ $f = 120\text{Hz}$	41	49		dB
Output Noise Voltage	VN	$f = 10\text{Hz} \sim 100\text{KHz}$ $T_J = 25^\circ\text{C}$		42		μV
Dropout Voltage	V_D	$T_J = 25^\circ\text{C}$		1.7		V
Quiescent Current	I_Q	$T_J = 25^\circ\text{C}$		3.8	6	mA
		$T_J = 125^\circ\text{C}$			5.5	mA
Quiescent Current Change	ΔI_Q	$V_I = 8\text{V to } 20\text{V}$			1.5	mA
		$I_O = 1\text{mA to } 40\text{mA}$			0.1	mA

THREE-TERMINAL POSITIVE VOLTAGE REGULATOR

RATINGS AND CHARACTERISTIC CURVES



IMPORTANT NOTICE

HC-SEMI reserves the right to make changes without further notice to any products herein.

HC-SEMI makes no warranty, representation or guarantee regarding

The suitability of its products for any particular purpose, nor does HC-SEMI assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages.

“Typical” parameters can and do vary in different applications. All operating parameters, including “Typicals” must be validated for each customer application by customer’s technical experts.

HC-SEMI products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the HC-SEMI product could create a situation where personal injury or death may occur.

Should Buyer purchase or use HC-SEMI products for any such unintended or unauthorized application, Buyer shall indemnify and hold HC-SEMI and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that HC-SEMI was negligent regarding the design or manufacture of the part.