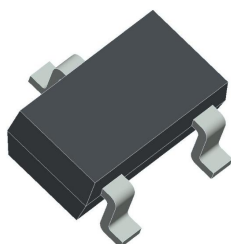


Features

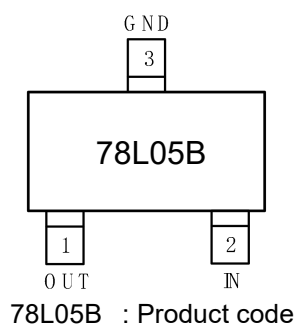
- Output Voltage: 5V
- Maximum Output Current: 0.1A
- Output Transition Safe-Area Compensation

Pin Assignment

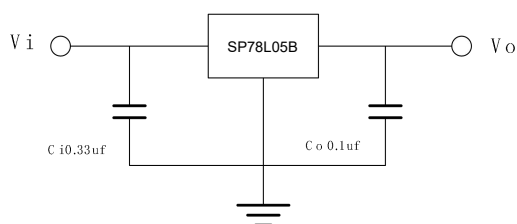


SOT-23

Marking



Typical Application



Part number rules

SP78L05B①

Designator	Description
①	Package: T2: SOT-23

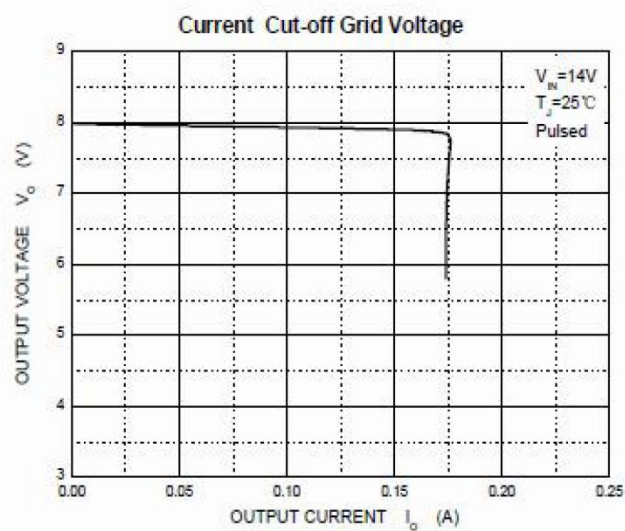
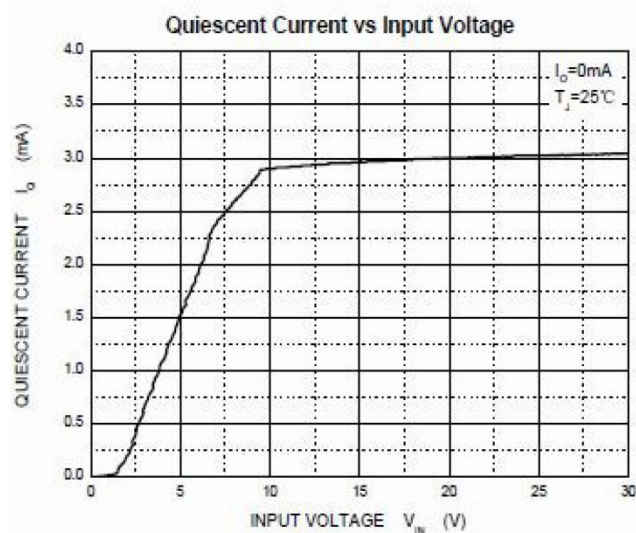
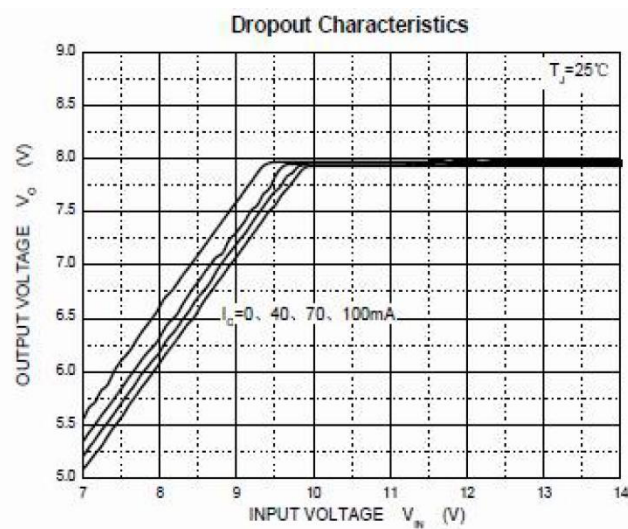
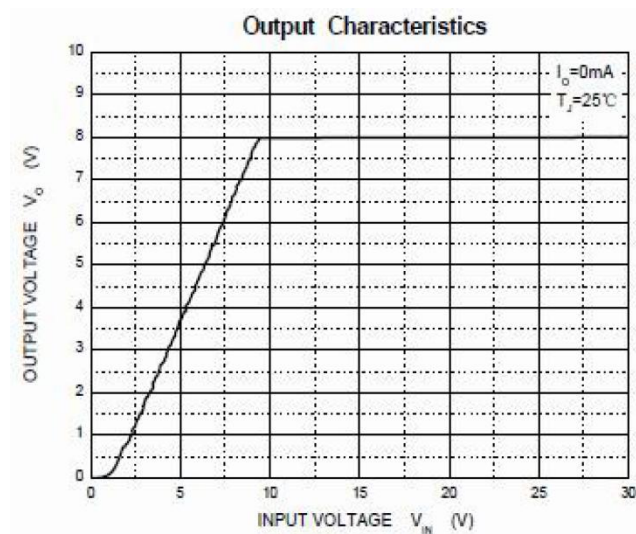
Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

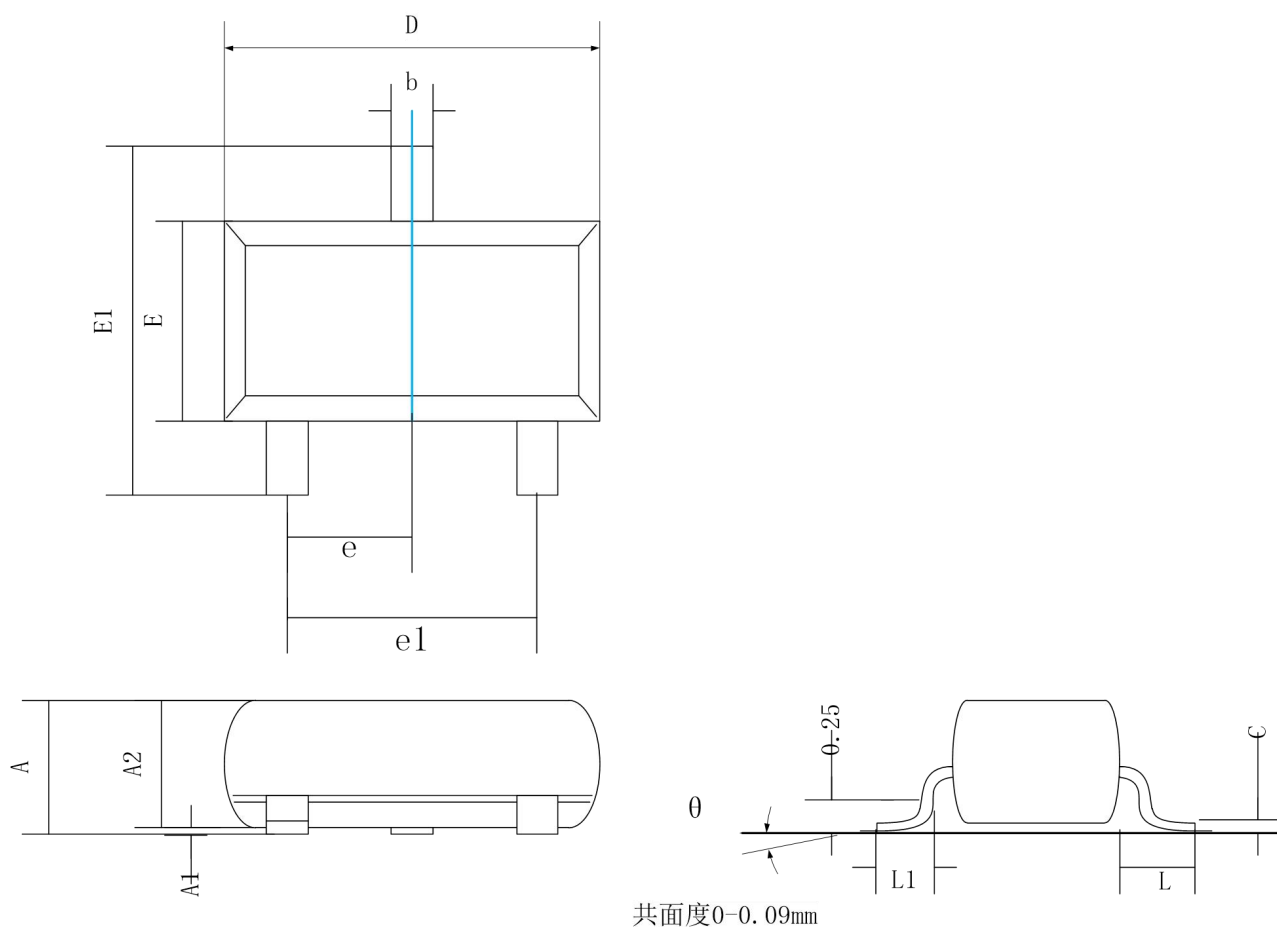
Parameter	Symbol	Value	Unit
Input voltage	V_i	30	V
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^{\circ}\text{C}$

Electrical Characteristics($T_a=25^{\circ}\text{C}$, $V_i=10\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output voltage	V_o	$7\text{V} \leq V_i \leq 20\text{V}$, $I_o=1\text{mA}-40\text{mA}$	4.8	5	5.2	V
Load Regulation	ΔV_o	$I_o=5\text{mA}-50\text{mA}$, $V_i=10\text{V}$			39	mV
		$I_o=5\text{mA}-100\text{mA}$, $V_i=10\text{V}$		10	79	mV
Line regulation	ΔV_o	$8\text{V} \leq V_i \leq 12\text{V}$, $I_o=50\text{mA}$			23	mV
Quiescent Current	I_q	$I_o=5\text{mA}$, $V_{\text{in}}=10\text{V}$	1.5		4.7	mA
Power current	I_{CC}	$V_i=36\text{V}$, $I_o=0\text{mA}$		4.7	9	mA

Typical Characteristics



SOT-23 Package Information


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50
θ	0°	8°