

/ Descriptions

TO-263
Voltage Regulator in a TO-263 Plastic Package.

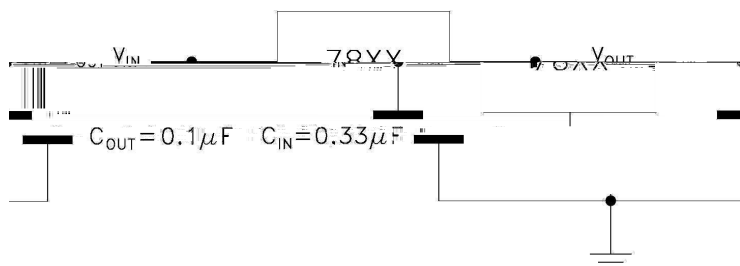
/ Features

3-Terminal regulators ,output current up to 1.5A, internal thermal overload protection and short-circuit limiting, HF Product.

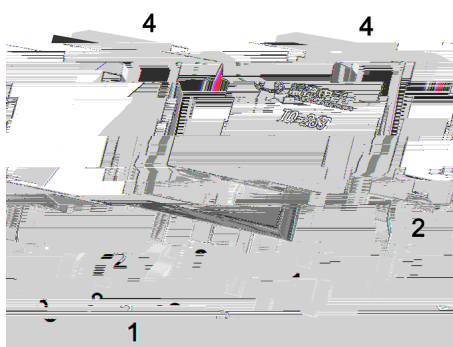
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 4 GND PIN 3 OUT

/ Marking

See Marking Instructions.


/ Absolute Maximum Ratings(Ta=25)

Parameter	N Symbol	Rating	Unit
Input voltage	V_I	35	V
Thermal Resistance Junction-ambient	R_{JA}	62.5	/W
Thermal Resistance Junction-case	R_{JC}	5.0	/W
Junction Temperature	T_J	150	
Operating Junction Temperature Range	T_{OPR}	-40 150	
Storage temperature range	T_{stg}	-65 150	

/ Electrical Characteristics(Ta=25 $V_I=10V, I_o=500mA$ unless otherwise specified)

Parameter	N Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_J=25$	4.8	5.0	5.2	V
		$V_I=7V-20V$ $I_o=5mA-1A$ $P_o \leq 15W$	4.75	5.0	5.25	V
Load Regulation	V_{Load}	$T_J=25$ $I_o=5mA-1.5A$			100	mV
		$T_J=25$ $I_o=250mA-750mA$			50	mV
Line Regulation	V_{Line}	$T_J=25$ $V_I=7V-25V$		3.0	100	mV
		$T_J=25$ $V_I=8V-12V$		1.0	50	mV
Quiescent Current	I_q	$T_J=25$			8.0	mA
Quiescent Current Change	I_q	$V_I=7V-25V$			0.8	mA
		$I_o=5mA-1A$			0.5	mA
Output Voltage Drift	V_o / T	$I_o=5mA$		-1.1		mV/
Output Noise Voltage	eN	B=10Hz-100KHz $T_J=25$			40	V/Vo
Supply Voltage Rejection	SVR	$V_I=8V-18V$ $f=120Hz$	62			dB
Dropout Voltage	V_d	$I_o=1A$ $T_J=25$		2.0		V
Output Resistance	R_o	$f=1KHz$		17		m
Short Circuit Current	I_{sc}	$V_I=35V$ $T_J=25$		0.75		A
Short Circuit Peak Current	I_{scp}	$T_J=25$		2.2		A

78B05

Rev.B Mar.-2026

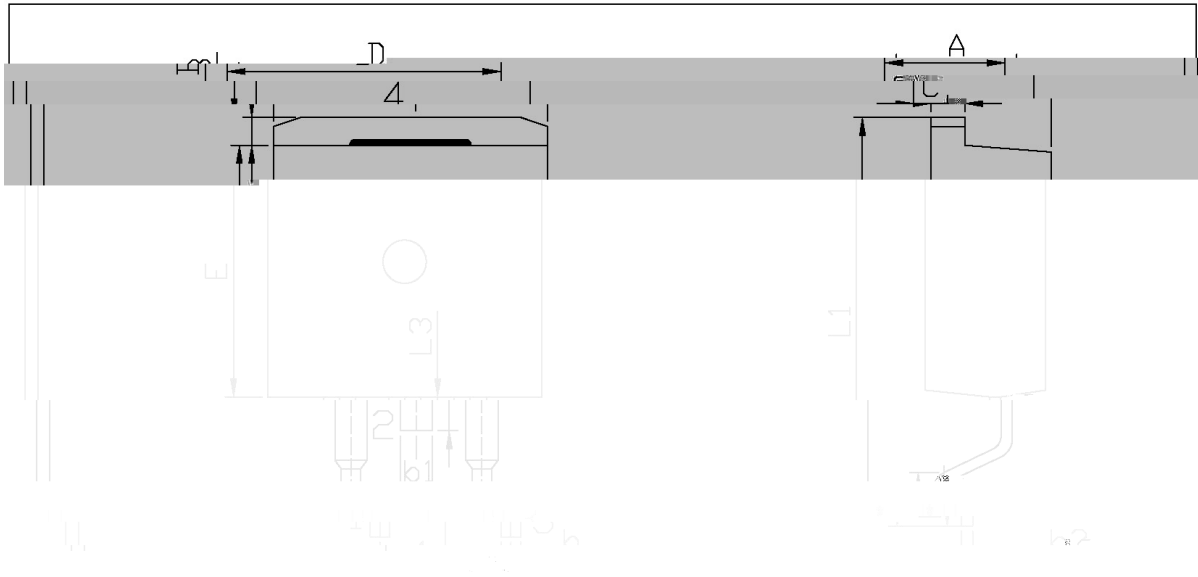


蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Electrical Characteristic Curve

/ Package Dimensions



Max		Min		Max		Min	
9.40	A	4.30	4.70	FL	9.00		
2.74	B	1.00	1.40	el	2.34		
4088	58420	0.00	0.00	0.00	0.00	0.00	0.00
15.00	16.00	b1	1.15	1.35	1.1		

78B05

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

- ب
- 1 أ 150 180 ج 60 90sec;
 - 2 245±5 ج 5±0.5sec;
 - 3 د 2 10 /sec.

Note:

- 1.Preheating:150~180 , Time:60~90sec.
- 2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3.