

/ Descriptions

TO-263

Voltage Regulator in a TO-263 Plastic Package.

/ Features

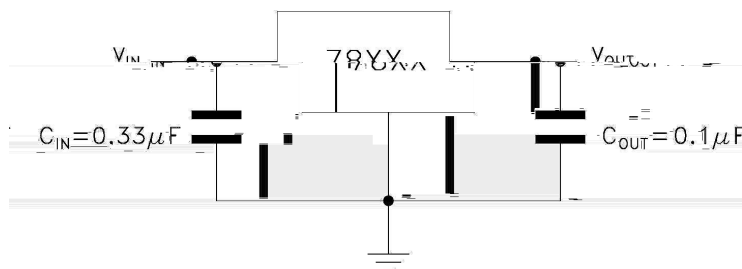
1.5A,

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

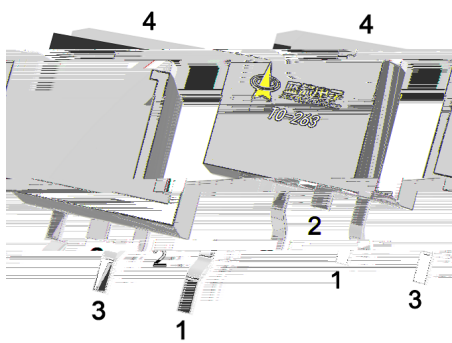
/ Applications

Voltage Regulator.

/ Equivalent Circuit or Application Circuit



/ Pinning



PIN1 IN PIN 2 4 GND PIN 3 OUT

/ Marking

See Marking Instructions.

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

Parameter	Symbol	Rating	Unit
Input voltage	V_i	35	V
Thermal Resistance Junction-ambient	$R_{\theta JA}$	62.5	$^\circ\text{C}/\text{W}$
Thermal Resistance Junction-case	$R_{\theta JC}$	5.0	$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150	$^\circ\text{C}$
Operating Junction Temperature Range	T_{OPR}	-40~150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-65~150	$^\circ\text{C}$

/ Electrical Characteristics($T_a=25^\circ\text{C}$ $V_i=10\text{V}$, $I_o=500\text{mA}$ unless otherwise specified)

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

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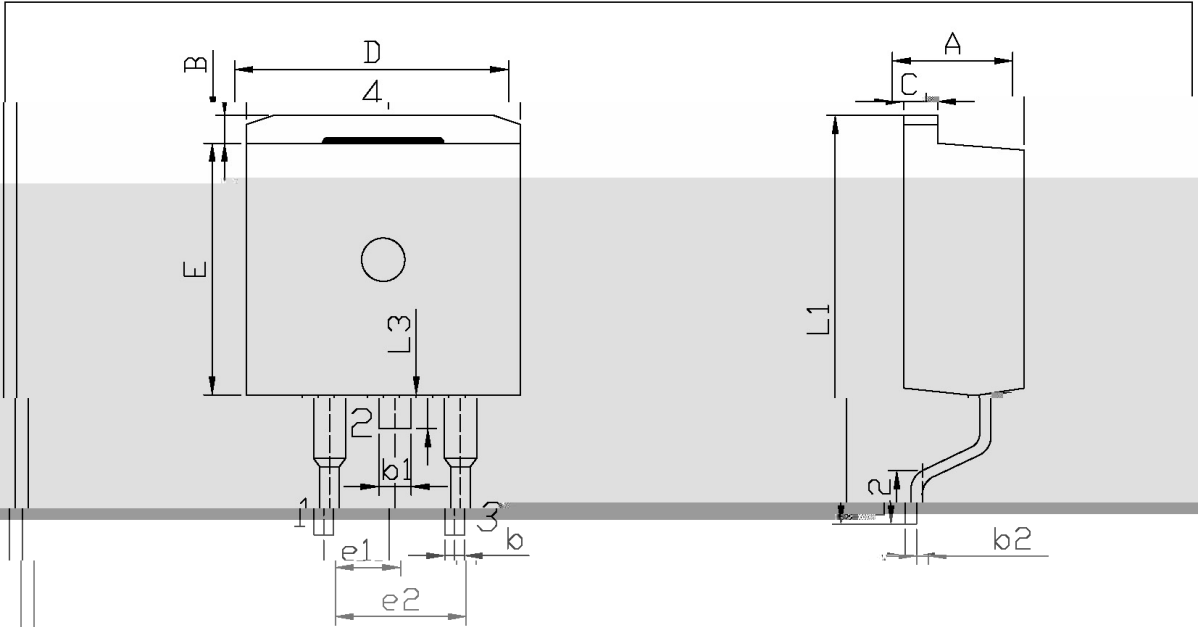


蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

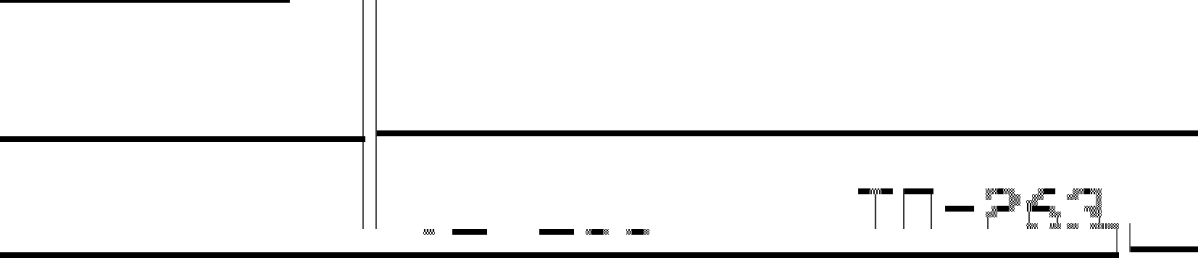
/ Electrical Characteristic Curve

I Package Dimensions

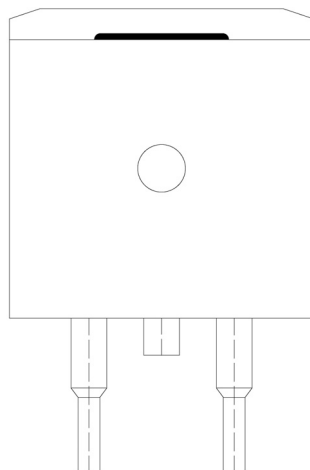


单位: mm

Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	4.30	4.70	F _L	0.00	0.40
B	1.00	1.40	e ₁	2.34	2.74
b	0.70	0.90	e ₂	4.88	5.28
b ₁	1.15	1.35	L ₁	15.00	16.00



/ Marking Instructions



BR

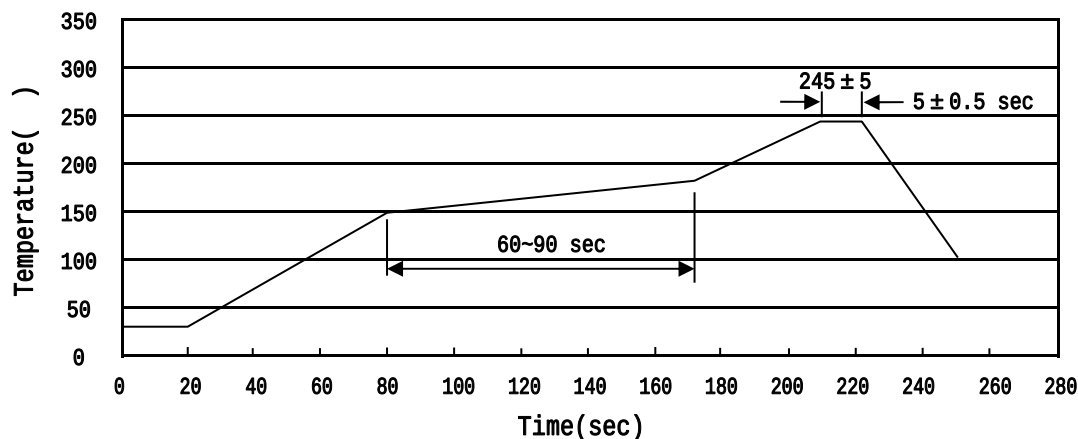
CW7805

Note:

BR: Company Code

CW7805: Product Type Code D

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



Note:

- | | | | | | |
|---|-------|-----|----|------------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 °C, Time:60~90sec. |
| 2 | 245±5 | | | 5±0.5sec; | 2.Peak Temp.:245±5 °C, Duration:5±0.5sec. |
| 3 | | | 2 | 10 °C/sec. | 3. Cooling Speed: 2~10 °C/sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
TO-263	800	1	800	6	4,800	13" ×24	360×360×50	380×335×366

/ TUBE

Package Type	Units					Dimension (unit mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
TO-263	50	20	1,000	5	5,000	532×33×7.0	555×164×50	575×290×180

/ Notices