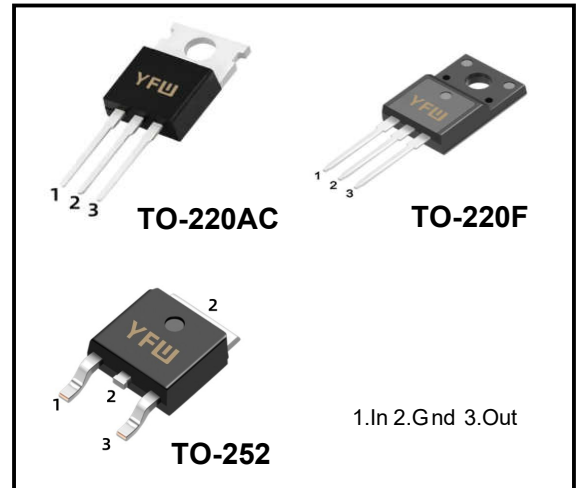


Three-terminal positive voltage regulator

FEATURES

- ◆ Output current up to 1.5A
- ◆ 15V output voltage available
- ◆ Thermal overload protection
- ◆ Short circuit protection
- ◆ Output transistor SOA protection



ABSOLUTE MAXIMUM RATINGS

Operating temperature range applies unless otherwise specified

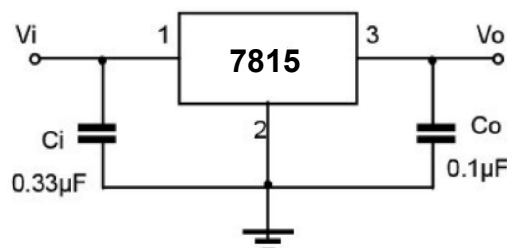
Characteristics	Symbols	Value	Units
Input Voltage	V	35	V
Operating Junction Temperature Range	T_{OPR}	-40~+125	°C
Storage Temperature Range	T_{stg}	-65~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION

($V_i=19V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

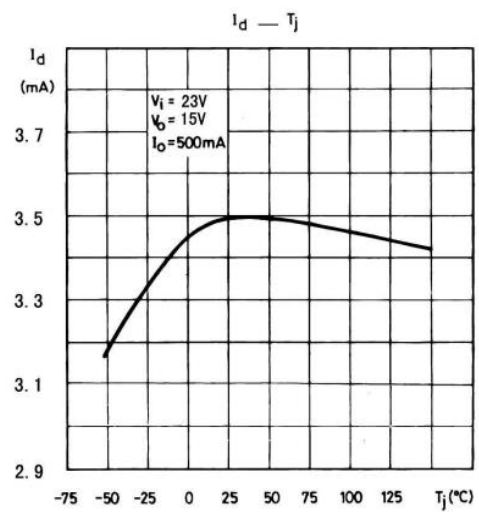
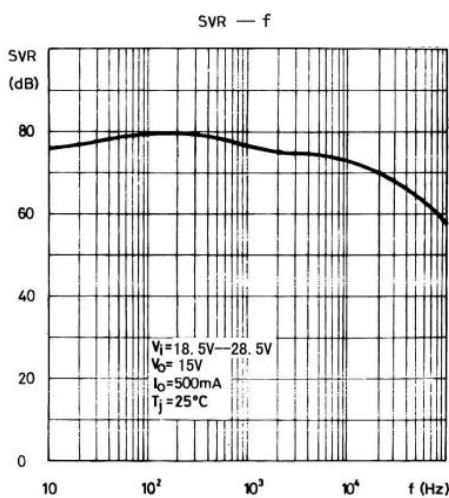
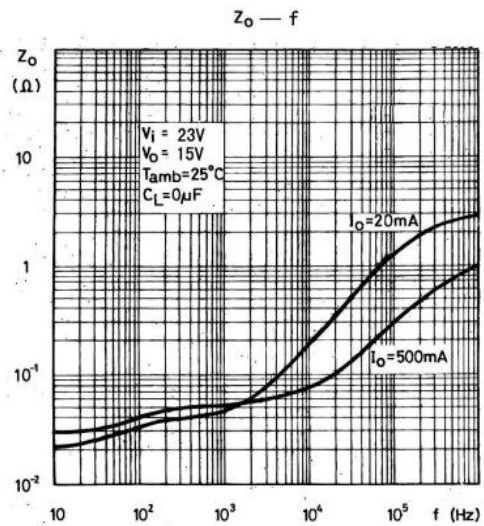
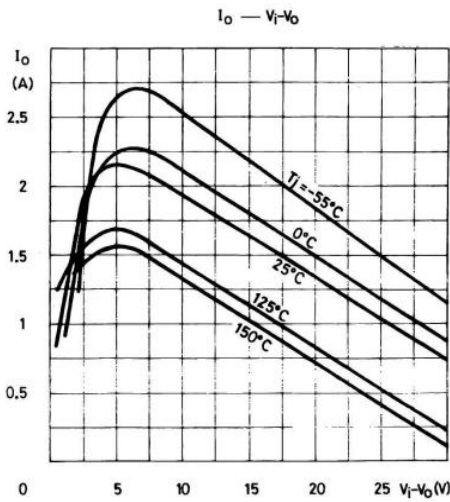
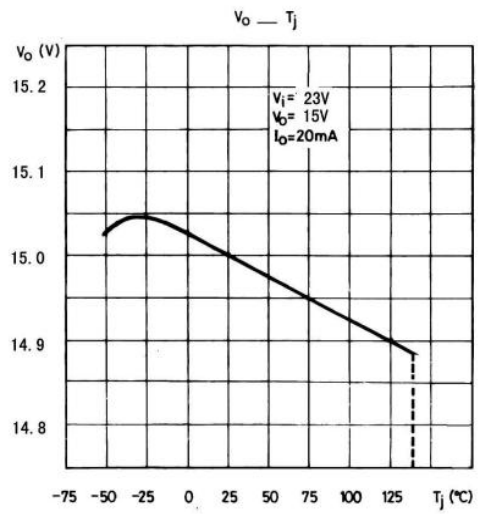
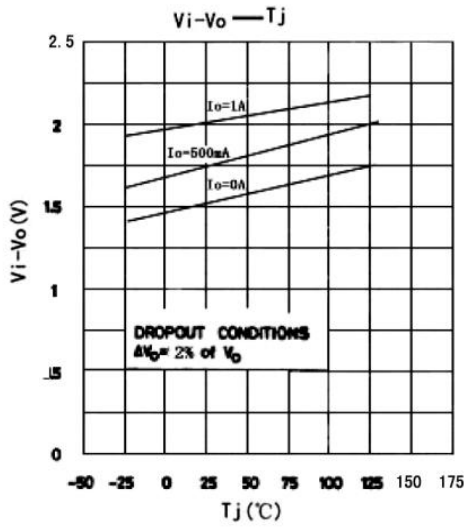
Parameter	Test conditions	Symbol	Min.	Typ.	Max.	Unit
Output Voltage	25°C	V_o	14.4	15	15.6	V
	17.5V ≤ V _i ≤ 30V, I _o = 5mA - 1A P _o ≤ 15W 0~125°C		14.25	15	15.75	V
Load Regulation	I _o = 5mA - 1.5A 25°C	ΔV_o		12	300	mV
	I _o = 250mA - 750mA 25°C			5	150	mV
Line Regulation	17.5V ≤ V _i ≤ 30V, I _o = 500mA 25°C	ΔV_o		11	300	mV
	20V ≤ V _i ≤ 26V, I _o = 500mA 25°C			3	150	mV
Quiescent Current	25°C	I_q		5.2	8	mA
Quiescent Current Change	17.5V ≤ V _i ≤ 30V, I _o = 500mA 0~125°C	ΔI_q			1	mA
	5mA ≤ I _o ≤ 1A 0~125°C				0.5	mA
Output Noise Voltage	10Hz ≤ f ≤ 100KHz 25°C	V_N		90		μV/V_o
Ripple Rejection	18.5V ≤ V _i ≤ 28.5V, f = 120Hz, I _o = 500mA 0~125°C	RR		62		dB
Dropout Voltage	I _o = 1A 25°C	V_D		2		V
Short Circuit Current	V _i = 35V 25°C	I_{SC}		230		mA
Peak Current	25°C	I_{pk}		2.2		A

TYPICAL APPLICATION

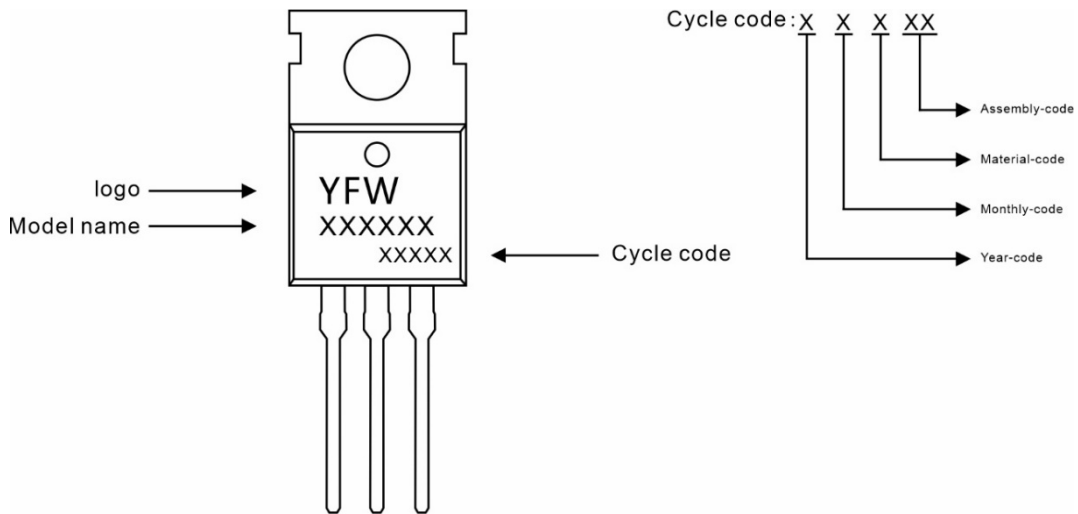


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

RATINGS AND CHARACTERISTIC CURVES



Marking Diagram



Ordering information

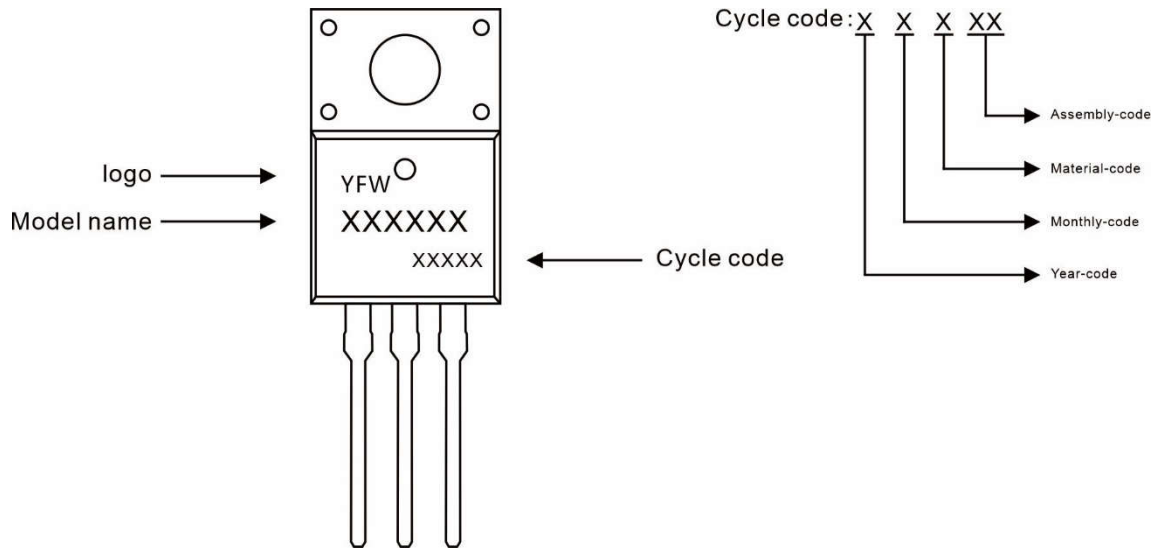
Model name	Package	Unit Weight	Base Quantity	Packing Quantity
7815AC	TO-220C	0.07oz(1.96g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220C

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.34	4.67	0.171	0.184
A1	2.52	2.82	0.099	0.111
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.30	0.50	0.012	0.020
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
E1	12.00	12.50	0.472	0.492
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	2.60	2.80	0.102	0.110
L	13.20	13.80	0.520	0.543
L1	3.80	4.20	0.150	0.165
Φ	3.60	3.96	0.142	0.156

Marking Diagram



Ordering information

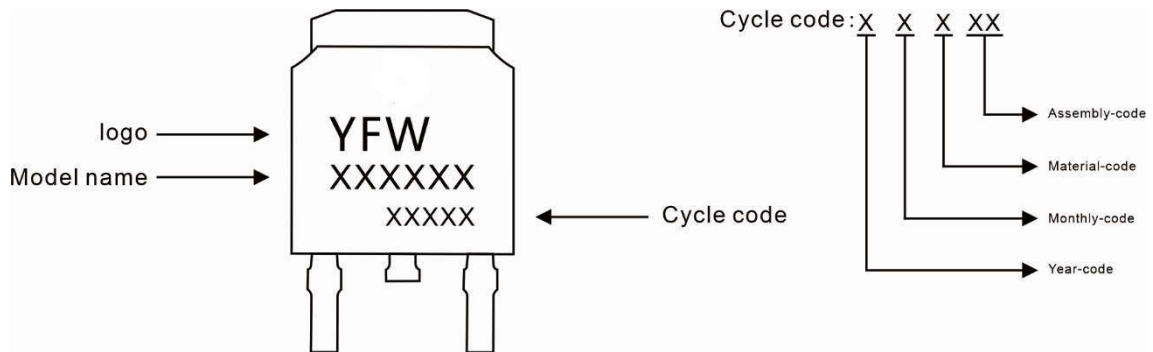
Model name	Package	Unit Weight	Base Quantity	Packing Quantity
7815AF	TO-220F	0.06oz(1.74g)	50pcs/tube	1000PCS/Box 5000PCS/Carton

Package Dimensions

TO-220F

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.50	4.90	0.177	0.193
A1	2.34	2.74	0.092	0.108
A2	2.66	2.86	0.105	0.113
b	0.75	0.85	0.030	0.033
b1	1.24	1.44	0.049	0.057
c	0.40	0.60	0.016	0.024
D	10.00	10.32	0.394	0.406
E	15.75	16.05	0.620	0.632
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	3.10	3.5	0.122	0.138
L	13.50	13.90	0.531	0.547
L1	2.90	3.30	0.114	0.130
Φ	3.10	3.30	0.122	0.130

Marking Diagram



Ordering information

Model name	Package	Unit Weight	Base Quantity	Packing Quantity
7815AD	TO-252	0.011oz(0.32g)	2500pcs/reel	5000pcs/box 25000pcs/Carton

Package Dimensions

TO-252

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.20	2.50	0.087	0.098
A1	0.00	0.12	0.000	0.005
A2	2.20	2.40	0.087	0.094
B	1.20	1.60	0.047	0.063
b	0.50	0.70	0.020	0.028
b1	0.70	0.90	0.028	0.035
c	0.40	0.60	0.016	0.024
c1	0.40	0.60	0.016	0.024
D	6.35	6.65	0.250	0.262
D1	5.20	5.40	0.205	0.213
E	5.40	5.70	0.213	0.224
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	10.00	11.00	0.393	0.433
L1	2.70	3.10	0.106	0.122
L2	1.40	1.80	0.055	0.071
L3	0.90	1.50	0.035	0.059

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