

Features

- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note1) ("P" Suffix Designates RoHS Compliant. See ordering information)

Maximum Ratings

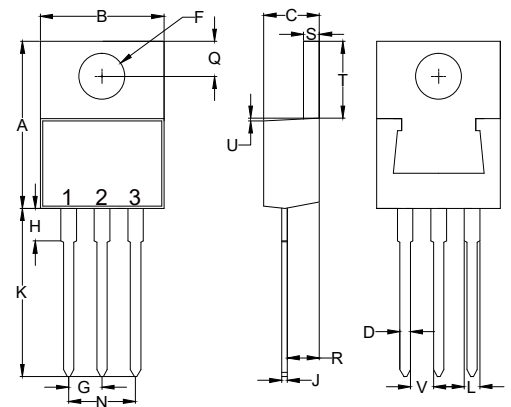
- Thermal Resistance: 83.3°C/W Junction to Air
- Thermal Resistance: 8.33°C/W Junction to Cases

Parameter	Symbol	Value	Unit
Input Voltage	V _I	35	V
Output Current	I _o	1.5	A
Power Dissipation(Ta=25°C)	P _D	1.5	W
Power Dissipation(Tc=25°C)	P _D	15	W
Operating Junction Temperature(T _{ja})* ^	T _{OPR}	0~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

Three-Terminal Positive Voltage Regulators

TO-220



PIN 1. INPUT
PIN 2. GND
PIN 3. OUTPUT

DIMENSIONS

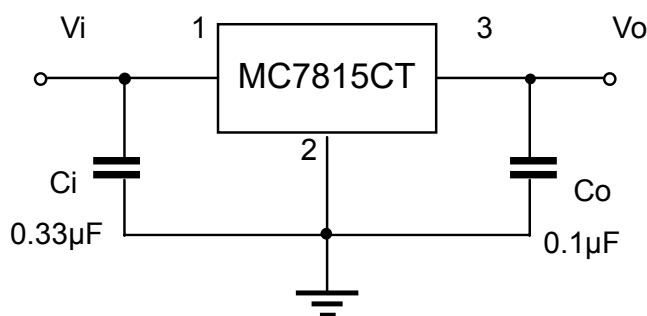
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.560	0.625	14.22	15.88	
B	0.380	0.420	9.65	10.67	
C	0.140	0.190	3.56	4.82	
D	0.020	0.045	0.51	1.14	
F	0.139	0.161	3.53	4.09	Φ
G	0.090	0.110	2.29	2.79	
H	-----	0.250	-----	6.35	
J	0.012	0.025	0.30	0.64	
K	0.500	0.580	12.70	14.73	
L	0.045	0.060	1.14	1.52	
N	0.190	0.210	4.83	5.33	
Q	0.100	0.135	2.54	3.43	
R	0.080	0.115	2.04	2.92	
S	0.045	0.055	1.14	1.39	
T	0.230	0.270	5.84	6.86	
U	-----	0.050	-----	1.27	
V	0.045	-----	1.15	-----	

Electrical Characteristics

($V_i=23V$, $I_o=500mA$, $0^\circ C < T_j < 125^\circ C$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, Unless Otherwise Specified)

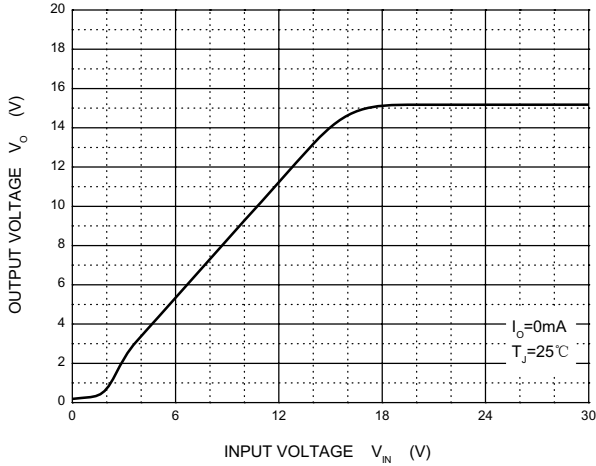
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25^\circ C$	14.4	15.0	15.6	V
		$17.5V \leq V_i \leq 30V, 5mA \leq I_o \leq 1000mA, P_D \leq 15W, 0 \sim 125^\circ C$	14.25	15.0	15.75	V
Load Regulation	ΔV_o	$5mA \leq I_o \leq 1500mA, T_j=25^\circ C$	-	12.0	300	mV
		$250mA \leq I_o \leq 750mA, T_j=25^\circ C$	-	4.0	150	mV
Line Regulation	ΔV_o	$17.5V \leq V_i \leq 30V, T_j=25^\circ C$	-	12.0	300	mV
		$20V \leq V_i \leq 26V, T_j=25^\circ C$	-	3.0	150	mV
Quiescent Current	I_q		-	4.3	8.0	mA
Quiescent Current Change	ΔI_q	$17.5V \leq V_i \leq 30V, 0 \sim 125^\circ C$	-	-	1.0	mA
		$5mA \leq I_o \leq 1000mA, 0 \sim 125^\circ C$	-	-	0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz, T_j=25^\circ C$	-	90	-	μV
Ripple Rejection	RR	$18.5V \leq V_i \leq 28.5V, f=120Hz, 0 \sim 125^\circ C$	54	70	-	dB
Dropout Voltage	V_d	$T_j=25^\circ C, I_o=1.0A$	-	2	-	V
Output Short Circuit Current	R_o	$f=1.0KHz, T_j=25^\circ C$	-	19	-	mohm
Output Short Circuit Current	I_{sc}	$T_j=25^\circ C$	-	230	-	mA
Peak Output Current	I_{pk}	$T_j=25^\circ C$	-	2.1	-	A
Output Voltage Drift	$\Delta V_o / \Delta T$	$0^\circ C \leq T_j \leq 125^\circ C, I_o=5.0mA$	-	-1	-	$mV/^\circ C$

Typical Application

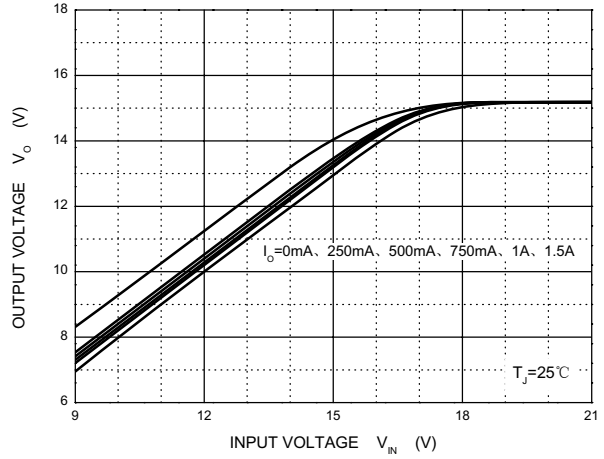


Curve Characteristics

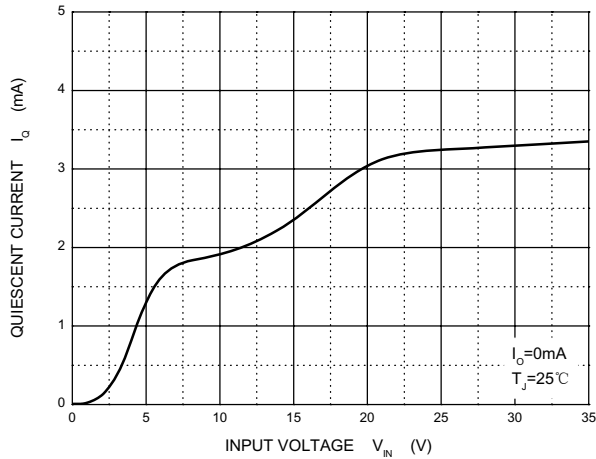
Output Characteristics



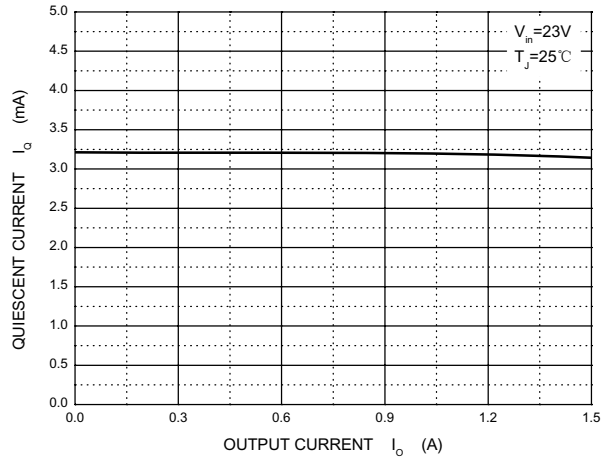
Dropout Characteristics



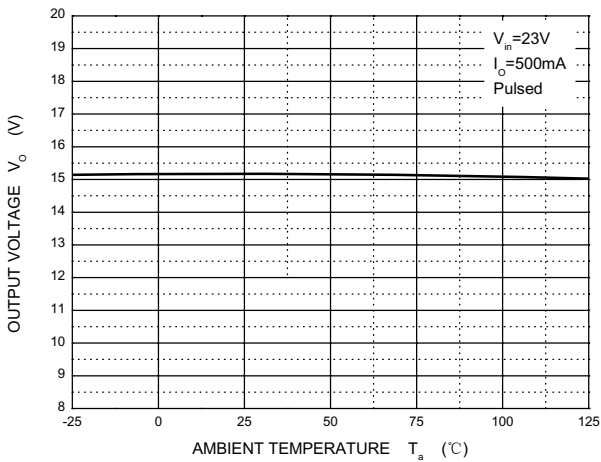
Quiescent Current vs Input Voltage



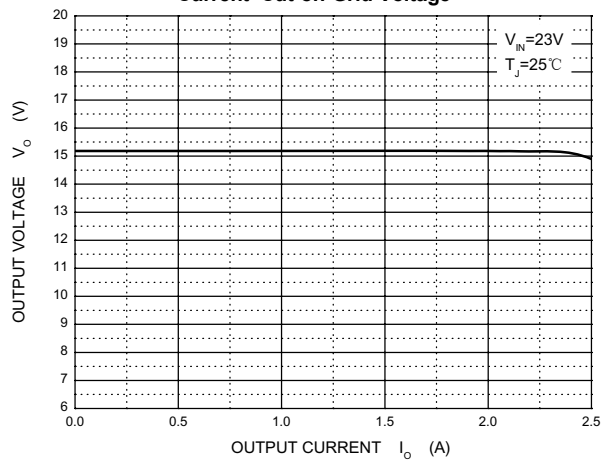
Quiescent Current vs Output Current



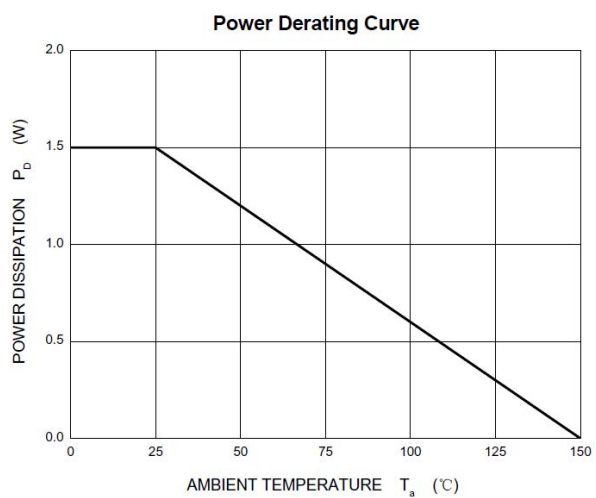
Output Voltage vs Ambient Temperature



Current Cut-off Grid Voltage



Curve Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube, 1Kpcs/Box, 5Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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