

MC7805FCT

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Output current in excess of 1.5 Ampere
- No external components required
- Internal thermal overload protection
- Internal short-circuit current limiting
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings @ $T_A=25^\circ\text{C}$, Unless Otherwise Noted

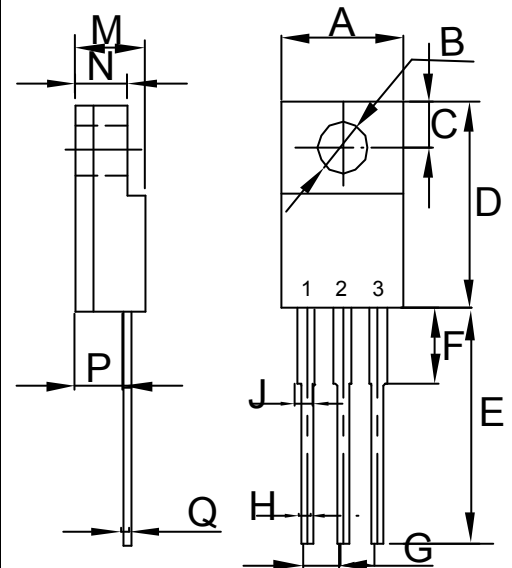
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Power Dissipation	P_D	15	W
Operating Junction Temperature	T_{OPR}	0---+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55---+150	$^\circ\text{C}$

Electrical Characteristics ($V_i=10\text{V}$, $I_o=500\text{mA}$, $0^\circ\text{C}<T_j<125^\circ\text{C}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	4.8V	5.0V	5.2V	$T_j=25^\circ\text{C}$
		4.75V		5.25V	$7\text{V} \leq V_i \leq 20\text{V}$, $5\text{mA} \leq I_o \leq 1.0\text{A}$, $P_D=15\text{W}$, $T_j=0\sim 125^\circ\text{C}$
Load Regulation	ΔV_o		1.3mV	100mV	$5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$,
			0.9mV	50mV	$250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
Line regulation	ΔV_o			100mV 50mV	$7\text{V} \leq V_i \leq 25\text{V}$, $T_j=25^\circ\text{C}$ $8\text{V} \leq V_i \leq 12\text{V}$, $T_j=25^\circ\text{C}$
Quiescent Current	I_q		3.5mA	8.0mA	$T_j=25^\circ\text{C}$
Quiescent Current Change	ΔI_q		0.3mA 0.03mA	1.3mA 0.5mA	$7\text{V} \leq V_i \leq 25\text{V}$ $5\text{mA} \leq I_o \leq 1.0\text{A}$
Output Noise Voltage	V_N		42 μV		$10\text{Hz} \leq f \leq 100\text{KHz}$
Ripple Rejection	RR	62dB	73dB		$8\text{V} \leq V_i \leq 18\text{V}$ $f=120\text{Hz}$, $T_j=0\sim 125^\circ\text{C}$
Dropout Voltage	V_d		2.0V		$I_o=1.0\text{A}$, $T_j=25^\circ\text{C}$
Output Resistance	R_o		10mohm		$f=1.0\text{KHz}$
Short Circuit Current	I_{sc}		230mA		$T_j=25^\circ\text{C}$
Peak Current	I_{pk}		2.2A		$T_j=25^\circ\text{C}$

Three-Terminal Positive Voltage Regulators

TO-220F



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.392	.408	9.96	10.36	
B	.138		3.50		Φ
C	.106		2.70		
D	.583	.598	14.80	15.20	
E	.520		13.20		
F	.142	.158	3.60	4.00	
G	.100		2.54		
H	.020	.030	0.50	0.75	
J	.043	.069	1.10	1.75	
M	.169	.185	4.30	4.70	
N	.110	.126	2.80	3.20	
P	.098	.114	2.50	2.90	
Q	.020	.030	0.50	0.75	

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



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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 5Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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