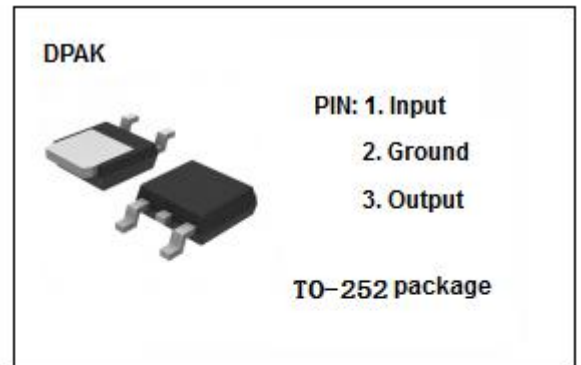


isc Three Terminal Positive Voltage Regulator

MC7805E

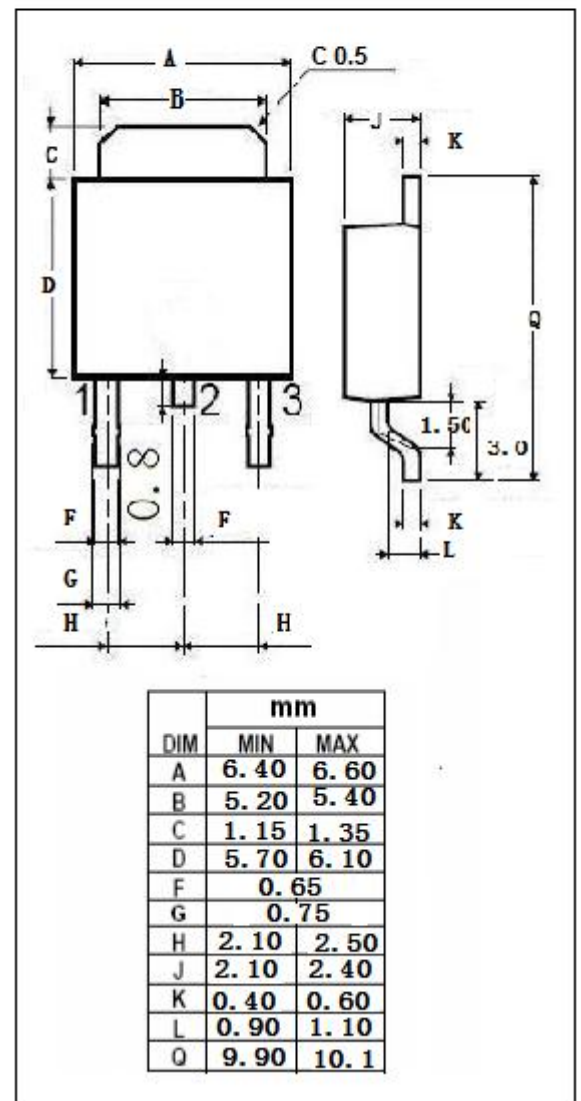
FEATURES

- Output current in excess of 1.0A
- Output voltage of 5V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	RATING	UNIT
V _i	DC input voltage	35	V
I _o	Output current	internally limited	
P _{tot}	Power dissipation	internally limited	
T _{OP}	Operating junction temperature	-40~125	°C
T _{stg}	Storage temperature	-55~150	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	5	°C/W
R _{th j-a}	Thermal Resistance, Junction to Ambient	65	°C/W

isc Three Terminal Positive Voltage Regulator**MC7805E****• ELECTRICAL CHARACTERISTICS**T_j=25°C (V_i= 10V, I_o=0.5A, C_i= 0.33 μ F, C_o= 0.1 μ F unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _o	Output Voltage	V _{in} =10V; I _o =500mA	4.8	5.2	V
V _o	Output Voltage	7V≤V _{in} ≤20V; P _o ≤15W 5.0mA≤I _o ≤1.0 A	4.75	5.25	V
ΔV _v	Line Regulation	7V≤V _{in} ≤25V 8V≤V _{in} ≤12V		100 50	mV
ΔV _i	Load Regulation	5.0mA≤I _o ≤1.0 A 250mA≤I _o ≤750mA		100 50	mV
I _b	Quiescent Current			8.0	mA
Δ _{b1}	Quiescent Current Change	5.0mA≤I _o ≤1.0A; V _{in} =10V		0.5	mA
Δ _{b2}	Quiescent Current Change	7V≤V _{in} ≤25V; I _o =500mA		1.3	mA

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