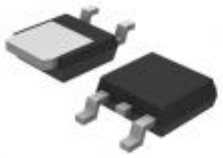
isc Three Terminal Positive Voltage Regulator LM7805

DPAK



PIN: 1. Input
2. Ground
3. Output

TO-252 package

FEATURES

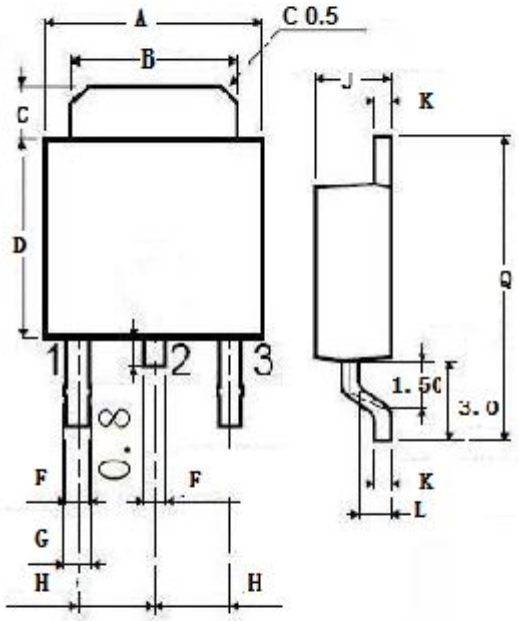
- Output current in excess of 1.0A
- Output voltage of 5V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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	0~150	℃
T_{stg}	Storage temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	5	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	65	℃/W



DIM	mm MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

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• ELECTRICAL CHARACTERISTICS

T_j=25℃ (V_i= 10V, I_O=0.5A, C_i= 0.33 μF, C_o= 0.1 μF 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; Po≤15W 5.0mA≤I_O≤1.0 A	4.75	5.25	V
$\triangle V_V$	Line Regulation	7V≤V_{in}≤25V 8V≤V_{in}≤12V		100 50	mV
$\triangle V_i$	Load Regulation	5.0mA≤I_O≤1.0 A 250mA≤I_O≤750mA		100 50	mV
I_b	Quiescent Current			8.0	mA
$\triangle_{b1}$	Quiescent Current Change	5.0mA≤I_O≤1.0A;V_{in}=10V		0.5	mA
$\triangle_{b2}$	Quiescent Current Change	7V≤V_{in}≤25V; I_O=500mA		1.3	mA