

**isc Three Terminal Positive Voltage Regulator**

**BA17805FP**

**FEATURES**

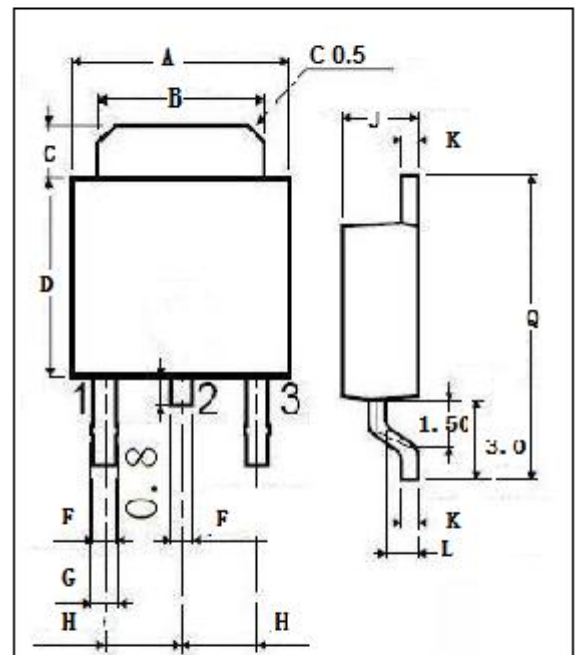
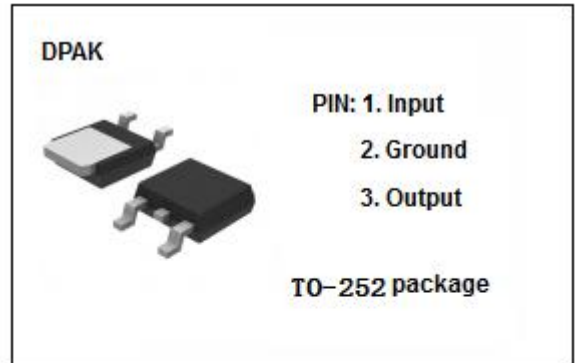
- Output current in excess of 1 A
- Output voltage of 5 V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	RATING	UNIT
V <sub>i</sub>	DC input voltage	35	V
I <sub>o</sub>	Output current	internally limited	
P <sub>tot</sub>	Power dissipation	internally limited	
T <sub>OP</sub>	Operating junction temperature	0~150	°C
T <sub>stg</sub>	Storage temperature	-55~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	5	°C/W
R <sub>th j-a</sub>	Thermal Resistance, Junction to Ambient	65	°C/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

**isc Three Terminal Positive Voltage Regulator****BA17805FP****• ELECTRICAL CHARACTERISTICS** $T_j=25^\circ\text{C}$  ( $V_i=10\text{V}$ ,  $I_o=0.5\text{A}$ ,  $C_i=0.33\ \mu\text{F}$ ,  $C_o=0.1\ \mu\text{F}$  unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_o$	Output Voltage	$V_{in}=10\text{V}$ ; $I_o=500\text{mA}$	4.8	5.2	V
$V_o$	Output Voltage	$I_o=5\ \text{mA to } 1\text{A}$ ; $V_{in}=7.5\ \text{to } 20\text{V}$ ;	4.75	5.25	V
$\Delta V_v$	Line Regulation	$7\text{V} \leq V_{in} \leq 25\text{V}$ $8\text{V} \leq V_{in} \leq 12\text{V}$		100 50	mV
$\Delta V_i$	Load Regulation	$5.0\text{mA} \leq I_o \leq 1.0\ \text{A}$ $250\text{mA} \leq I_o \leq 750\text{mA}$		100 50	mV
$I_b$	Quiescent Current	$V_{in}=10\text{V}$ ; $I_o=0.5\text{A}$		8.0	mA
$\Delta_{b1}$	Quiescent Current Change	$5.0\text{mA} \leq I_o \leq 1.0\text{A}$		0.5	mA
$\Delta_{b2}$	Quiescent Current Change	$8\text{V} \leq V_{in} \leq 25\text{V}$		0.8	mA