

## isc Three Terminal Positive Voltage Regulator

78H05

### FEATURES

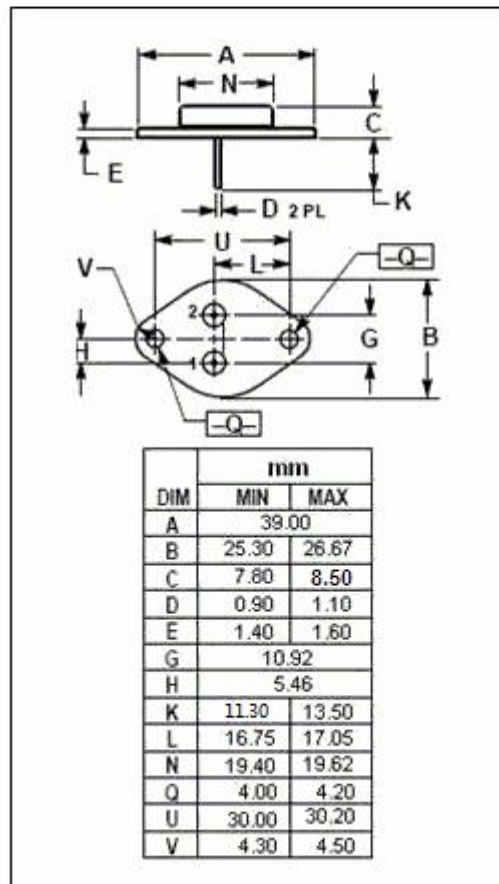
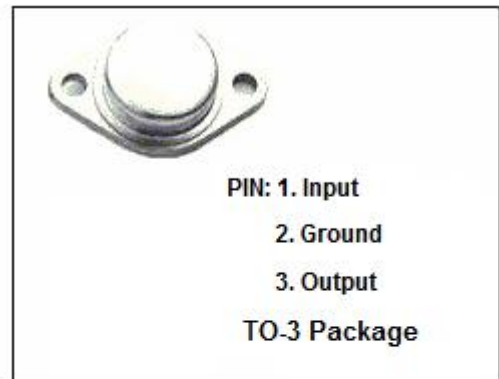
- Output current in excess of 5.0A
- Output voltage of 5V
- Internal thermal overload protection
- Output transition Safe-Area compensation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )

SYMBOL	PARAMETER	RATING	UNIT
$V_i$	DC input voltage	12	V
$I_o$	Output current	internally limited	
$P_{tot}$	Power dissipation	internally limited	
$T_{OP}$	Operating junction temperature	-40~125	$^{\circ}\text{C}$
$T_{stg}$	Storage temperature	-55~150	$^{\circ}\text{C}$

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^{\circ}\text{C}/\text{W}$



**isc Three Terminal Positive Voltage Regulator****78H05****• ELECTRICAL CHARACTERISTICS** $T_j=25^{\circ}\text{C}$  (  $C_i=0.33\ \mu\text{F}$ ,  $C_o=0.1\ \mu\text{F}$  unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_o$	Output Voltage	$V_{in}=8\text{V}$ ; $I_o=10\text{mA}$	4.95	5.05	V
$V_o$	Output Voltage	$V_{in}=6.5\text{V to }10\text{V}$ ; $0 \leq I_o \leq I_{FULLLOAD}$	4.925	5.075	V
$\Delta V_v$	Line Regulation	$6.5\text{V} \leq V_{in} \leq 10\text{V}$ ; $I_o=10\text{mA}$		6	mV
$\Delta V_i$	Load Regulation	$V_{in}=8\text{V}$ ; $0 \leq I_o \leq I_{FULLLOAD}$		20	mV
$I_b$	Quiescent Current	$V_{in}=10\text{V}$		10	mA

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