

NTE39
Silicon PNP Transistor
Line-Operated Series Pass/Switching Regulator
(Compl to NTE157)

Description:

The NTE39 is a silicon PNP transistor in a TO126 type package designed for use in line-operated applications such as low power, line-operated series pass and switching regulators requiring PNP capability.

Features:

- High Collector-Emitter Sustaining Voltage: $V_{CEO(sus)} = 300V @ I_C = 1.0mA$
- Excellent DC Current Gain: $h_{FE} = 30 \text{ to } 240 @ I_C = 50mA$

Absolute Maximum Ratings:

Collector-Emitter Voltage, V_{CEO}	300V
Emitter-Base Voltage, V_{EB}	3V
Continuous Collector Current, I_C	500mA
Total Power Dissipation ($T_C = +25^\circ C$), P_D	20W
Derate Above $25^\circ C$	0.16W/ $^\circ C$
Operating Junction Temperature Range, T_J	-65° to $+150^\circ C$
Storage Temperature Range, T_{stg}	-65° to $+150^\circ C$
Thermal Resistance, Junction to case, $R_{\theta JC}$	6.25 $^\circ C/W$

Electrical Characteristics: ($T_C = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 1.0mA, I_B = 0$	300	—	—	V
Collector Cutoff Current	I_{CEO}	$V_{CB} = 300V, I_E = 0$	—	—	100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 3V, I_C = 0$	—	—	100	μA
ON Characteristics						
DC Current Gain	h_{FE}	$I_C = 50mA, V_{CE} = 10V$	30	—	240	

