

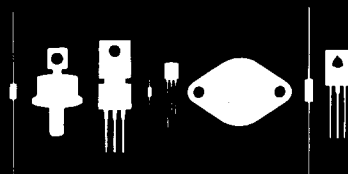
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145 Adams Avenue
Hauppauge, New York 11788



SE9300

SE9301

SE9302

Silicon NPN Transistor

Darlington Power

JEDEC TO-220 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR SE9300, 01, 02 are Silicon NPN Epitaxial Base, Monolithic Diffused Resistor Type Darlington Construction Power Transistors designed for audio amplifiers and medium power linear and switching applications.

MAXIMUM RATINGS ($T_C=25^{\circ}\text{C}$)

		9300	9301	9302
Collector to Emitter Voltage	V_{CE0}	60V	80V	100V
Collector to Base Voltage	V_{CB0}	60V	80V	100V
Emitter to Base Voltage	V_{EB0}	5V	5V	5V
Collector Current	I_C	10A	10A	10A
Power Dissipation	P_D	70W	70W	70W
Operating Junction Temperature	T_J	-65 to +150°C		
Storage Temperature	T_{stg}	-65 to +150°C		

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$)

Symbol	Test Conditions	Min.	Max.	Unit
I_{CB0}	$V_{CE}=\text{Rated } V_{CE0}$		200	μA
I_{EB0}	$V_{EB}=5.0\text{V}$		4.0	mA
I_{CE0}	$V_{CE}=0.5 \times \text{Rated } V_{CE0}$		500	μA
V_{CE0}	$I_C=100\text{mA}$	9300 60 9301 80 9302 100		V
$V_{CE(S)}$	$I_C=4.0\text{A}, I_B=16\text{mA}$		2.0	V
$V_{CE(S)}$	$I_C=7.5\text{A}, I_B=150\text{mA}$		2.5	V
$V_{BE(ON)}$	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}$		2.5	V
$V_{BE(ON)}$	$V_{CE}=3.0\text{V}, I_C=7.5\text{A}$		3.0	V
h_{FE}	$V_{CE}=3.0\text{V}, I_C=1.0\text{A}$	750		-
h_{FE}	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}$	1,000		-
h_{FE}	$V_{CE}=3.0\text{V}, I_C=7.5\text{A}$	100		-
h_{fe}	$V_{CE}=3.0\text{V}, I_C=4.0\text{A}, f=1.0\text{ MHz}$	1.0		-



To-220