

TO-220 Plastic-Encapsulate Transistors

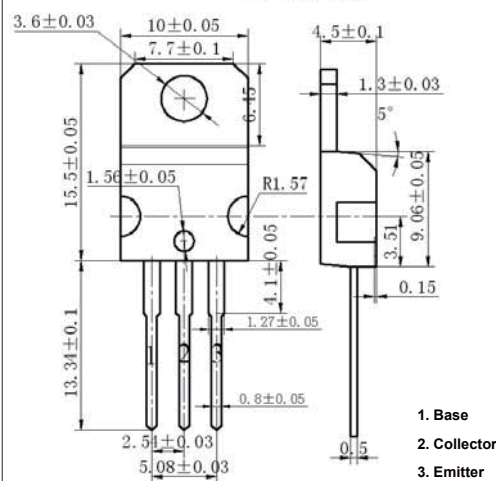
FEATURES

- Darlington Transistor PNP Transistors
- Medium Power Complementary Silicon Transistors

MECHANICAL DATA

- Case style:TO-220 molded plastic
- Mounting position:any

TO-220SE Unit:mm



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	-100	V
V_{CEO}	Collector Emitter Voltage	-100	V
V_{EBO}	Emitter Base Voltage	-5	V
I_C	Collector Current	-5	A
P_C	Collector Power Dissipation	2	W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55 ~ 150	°C
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	62.5	°C/W
$R_{\theta JC}$	Thermal Resistance Junction to Case	1.92	°C/W

Electrical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = -1\text{mA}, I_E = 0$	-100			V
$V_{CEO(sus)}$	Collector-emitter breakdown voltage	$I_C = -30\text{mA}, I_B = 0$	-100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -1\text{mA}, I_C = 0$	-5			V
I_{CBO}	Collector cut-off current	$V_{CB} = -100\text{V}, I_E = 0$			-0.2	mA
I_{CEO}	Collector cut-off current	$V_{CE} = -50\text{V}, I_B = 0$			-0.5	mA
I_{EBO}	Emitter cut-off current	$V_{EB} = -5\text{V}, I_C = 0$			-2	mA
$h_{FE(1)}$	DC current gain	$V_{CE} = -3\text{V}, I_C = -0.5\text{A}$	1000			
$h_{FE(2)}$		$V_{CE} = -3\text{V}, I_C = -3\text{A}$	1000			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = -3\text{A}, I_B = -12\text{mA}$			-2	V
		$I_C = -5\text{A}, I_B = -20\text{mA}$			-4	V
V_{BE}	Base-emitter voltage	$V_{CE} = -3\text{V}, I_C = -3\text{A}$			-2.5	V
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 0.1\text{MHz}$			300	pF

Typical Characteristics

