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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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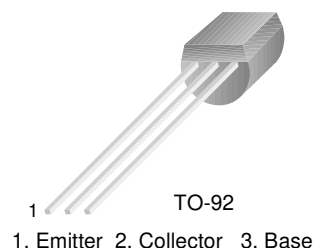
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



BSR50

NPN Darlington Transistor

- This device designed for applications requiring extremely high gain at collector currents to 0.5A.
- Sourced from Process 06.



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CEO}	Collector-Emitter Voltage	45	V
V_{CBO}	Collector-Base Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1.5	A
T_J, T_{STG}	Storage Temperature	-55 ~ 150	$^{\circ}\text{C}$

Electrical Characteristics $T_A=25^{\circ}\text{C}$ unless otherwise noted

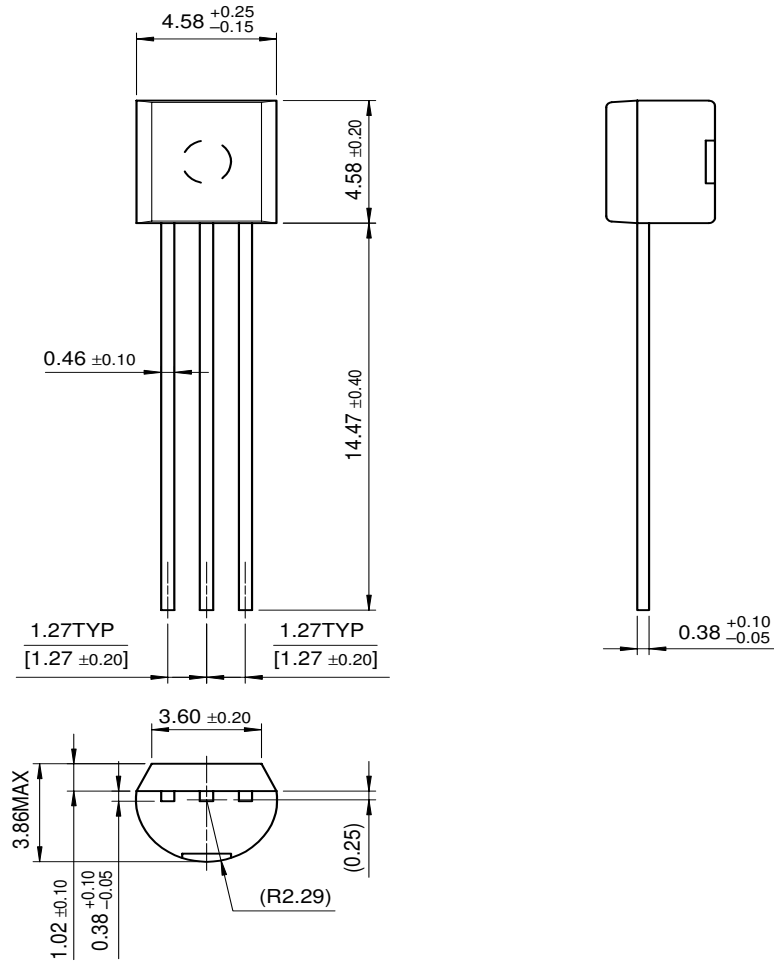
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage *	$I_C = 10\text{mA}, I_B = 0$	45			V
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 100\mu\text{A}, I_B = 0$	60			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 100\mu\text{A}, I_C = 0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 45\text{V}, I_E = 0$			50	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4.0\text{V}, I_C = 0$			50	nA
h_{FE}	DC Current Gain	$V_{CE} = 10\text{V}, I_C = 150\text{mA}$ $V_{CE} = 10\text{V}, I_C = 0.5\text{A}$	1,000 2,000			
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = 500\text{mA}, I_B = 500\mu\text{A}$ $I_C = 1.0\text{A}, I_B = 4.0\text{mA}$			1.3 1.6	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = 500\text{mA}, I_B = 500\mu\text{A}$ $I_C = 1.0\text{mA}, I_B = 4.0\text{mA}$			0.9 2.2	V

Thermal Characteristics $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	625 5.0	mW mW/ $^{\circ}\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	83.3	$^{\circ}\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	$^{\circ}\text{C}/\text{W}$

Package Dimensions

TO-92



Dimensions in Millimeters

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