

**isc Silicon PNP Darlington Power Transistor**
**2SB1550**
**DESCRIPTION**

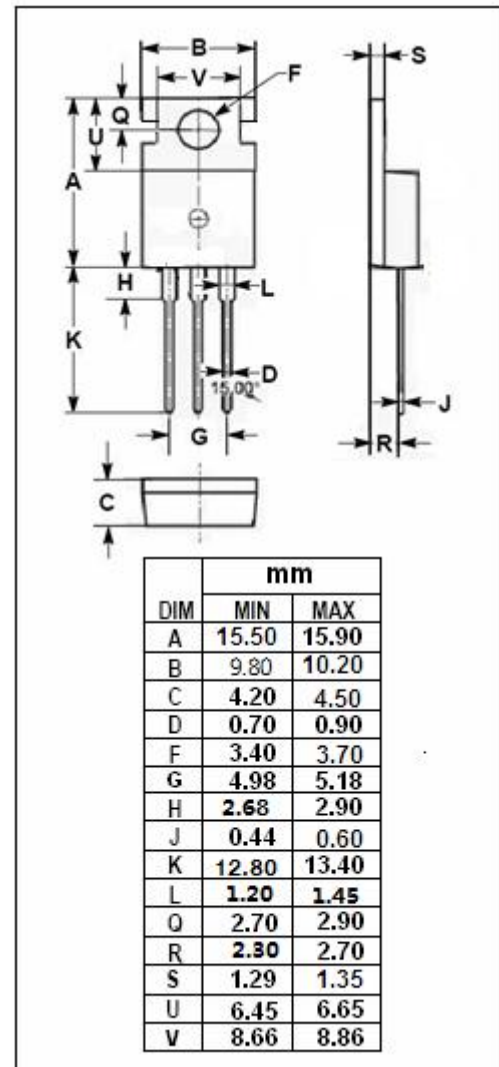
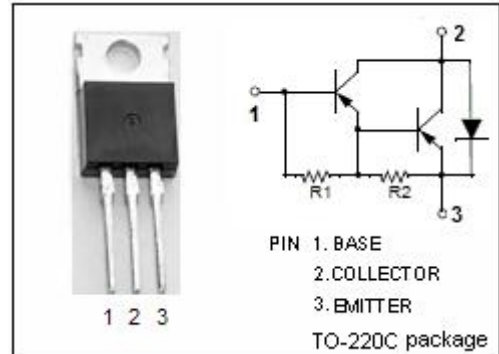
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -80V(\text{Min})$
- High DC Current Gain-  
:  $h_{FE} = 1000(\text{Min})@I_C = -5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Driver for chopper regulator, DC motor driver and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-80	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-10	A
$I_{CP}$	Collector Current-Pulse	-15	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	40	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



## isc Silicon PNP Darlington Power Transistor

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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}; I_B = 0$	-80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -5\text{mA}$			-1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -5\text{mA}$			-2.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{V}; I_E = 0$			-10	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-3	mA
$h_{FE}$	DC Current Gain	$I_C = -5\text{A}; V_{CE} = -3\text{V}$	1000		20000	
$C_{OB}$	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f_{test} = 1.0\text{MHz}$		90		pF
$f_T$	Current-Gain—Bandwidth Product	$I_E = -0.5\text{A}; V_{CE} = -5\text{V}$		12		MHz

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