

## isc Silicon PNP Darlington Power Transistor

2SB1625

## DESCRIPTION

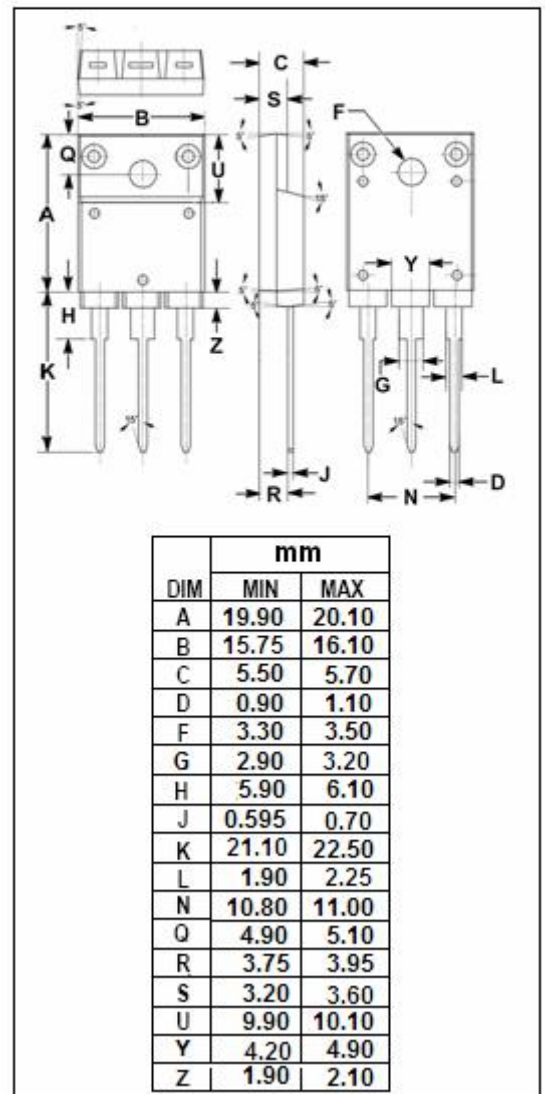
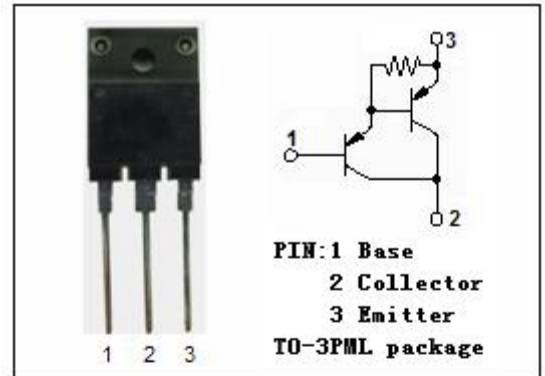
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -110V(\text{Min})$
- Low-Collector Saturation Voltage-  
:  $V_{CE(sat)} = -2.5V(\text{Max.}) @ I_C = -5A$
- Complement to Type 2SD2494
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for audio, series regulator and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-110	V
$V_{CEO}$	Collector-Emitter Voltage	-110	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-6	A
$I_B$	Base Current- Continuous	-1	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	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****2SB1625****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	$I_C = -30\text{mA}; I_B = 0$	-110			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -5\text{mA}$			-2.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -5\text{A}; I_B = -5\text{mA}$			-3.0	V
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-100	$\mu\text{A}$
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -110\text{V}; I_E = 0$			-100	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C = -5\text{A}; V_{CE} = -4\text{V}$	5000		30000	
$C_{OB}$	Collector Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1\text{MHz}$		110		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -12\text{V}$		100		MHz

**◆  $h_{FE}$  Classifications**

O	P	Y
5000-12000	6500-20000	15000-30000

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