

## isc Silicon PNP Darlington Power Transistor

2SB668

## DESCRIPTION

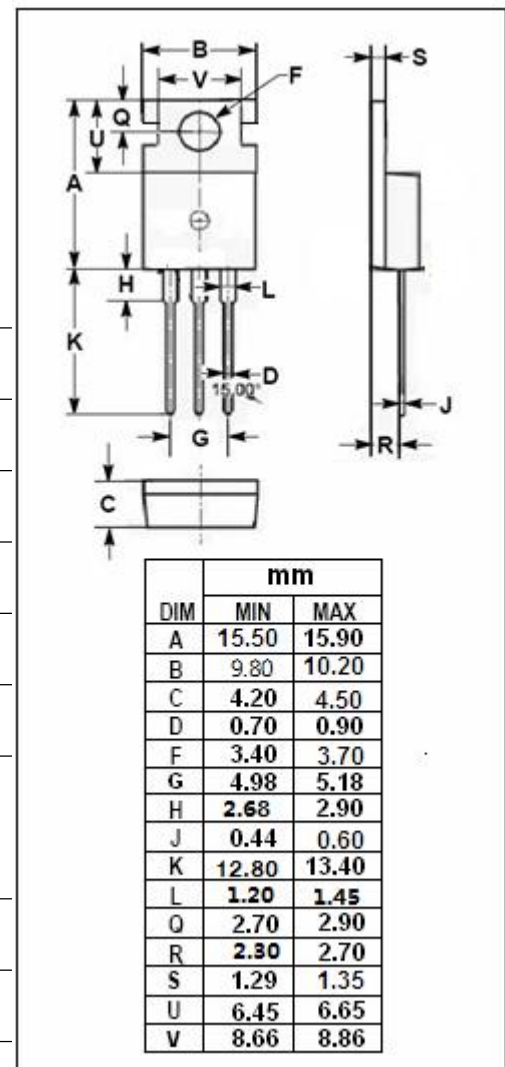
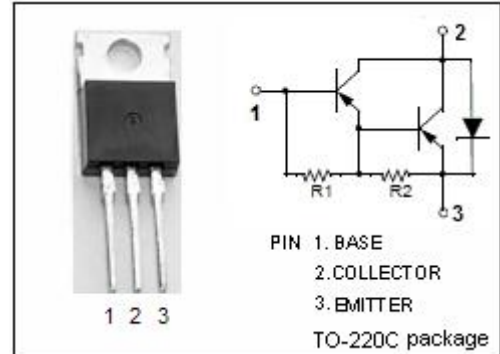
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -100V(\text{Min})$
- High DC Current Gain  
:  $h_{FE} = 2000(\text{Min}) @ I_C = -0.5A$
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for use in power amplifier and switching applications

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

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-Continuous	-3	A
$I_{CP}$	Collector Current-Peak	-5	A
$P_C$	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	25	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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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	$I_C = -10\text{mA}$ ; $I_B = 0$	-100			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -2\text{mA}$ ; $I_C = 0$	-5			V
$V_{(BR)CBO}$	Collector-Base breakdown voltage	$I_C = -1\text{mA}$ ; $I_E = 0$	-100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$ ; $I_B = -8\text{mA}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -2\text{A}$ ; $I_B = -8\text{mA}$			-2.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -100\text{V}$ ; $I_E = 0$			-0.1	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -100\text{V}$ ; $I_B = 0$			-0.5	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}$ ; $I_C = 0$			-2	mA
$h_{FE-1}$	DC Current Gain	$I_C = -0.5\text{A}$ ; $V_{CE} = -3\text{V}$	2000			
$h_{FE-2}$	DC Current Gain	$I_C = -3\text{A}$ ; $V_{CE} = -3\text{V}$	750			

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