

**isc Silicon PNP Darlington Power Transistor**
**2SB674**
**DESCRIPTION**

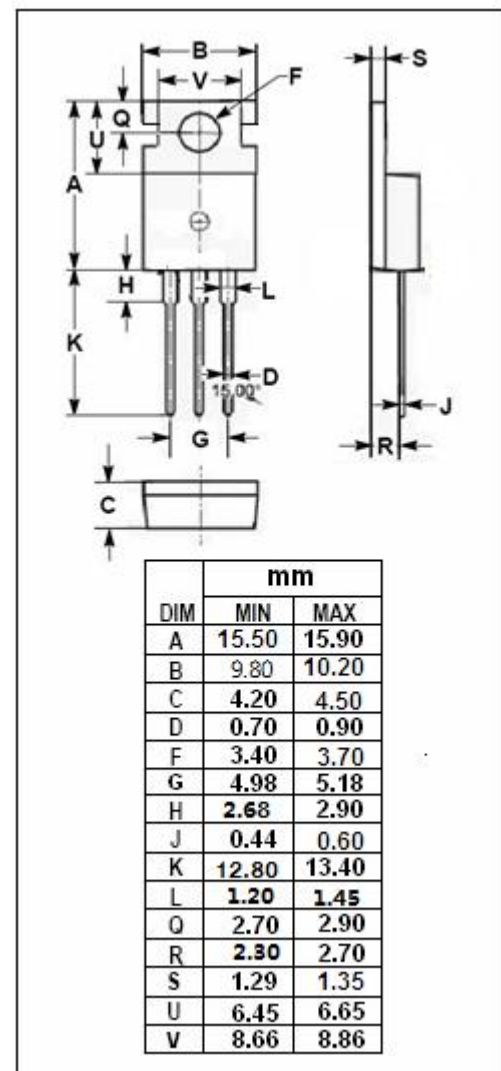
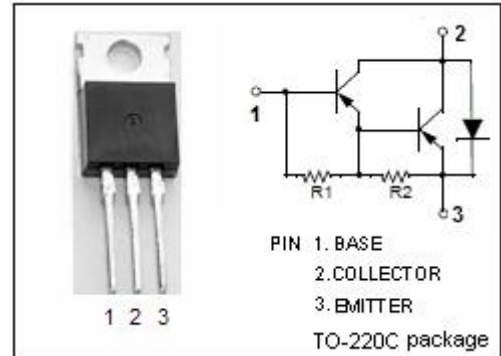
- High DC Current Gain  
:  $h_{FE} = 2000(\text{Min.}) @ I_C = 3.0\text{A}$
- Low Saturation Voltage  
:  $V_{CE(\text{sat})} = 1.5\text{V}(\text{Max.}) @ I_C = 3.0\text{A}$
- Complement to Type 2SD634
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- High power switching applications.
- Hammer drive, pulse motor drive 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	5	V
$I_C$	Collector Current-Continuous	7	A
$I_B$	Base Current-Continuous	0.2	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	$^\circ\text{C}$



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**ELECTRICAL CHARACTERISTICS**

 T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	80			V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 6mA			1.5	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 7A; I <sub>B</sub> = 14mA			2.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 6mA			2.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 80V; I <sub>E</sub> = 0			100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			3.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 3A ; V <sub>CE</sub> = 3V	2000		15000	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 7A ; V <sub>CE</sub> = 3V	1000			

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