

isc Silicon PNP Darlington Power Transistor
2SB675
DESCRIPTION

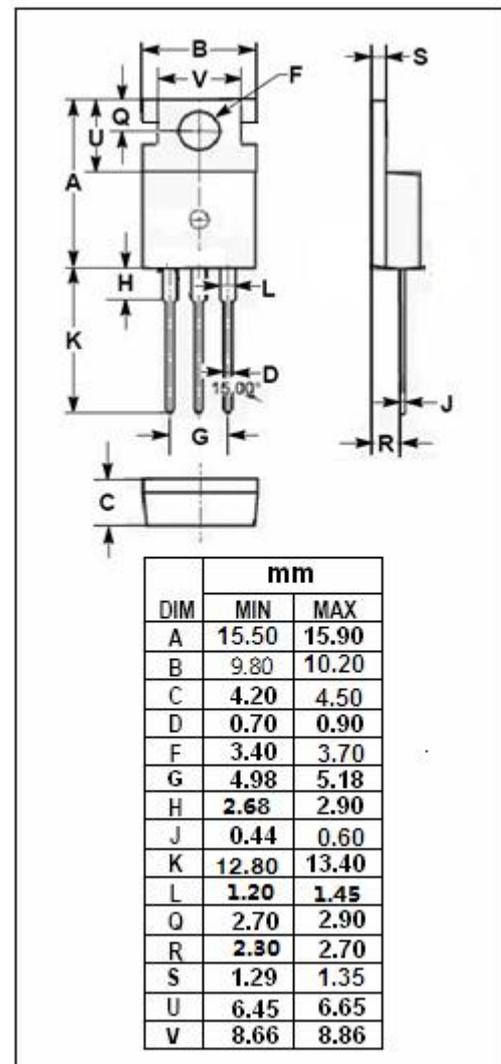
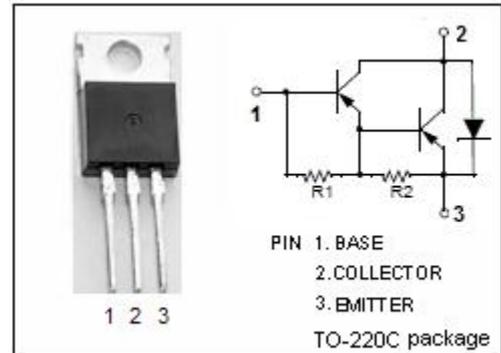
- High DC Current Gain
: $h_{FE} = 2000(\text{Min.}) @ I_C = 3.0\text{A}$
- Low Saturation Voltage
: $V_{CE(\text{sat})} = 1.5\text{V}(\text{Max.}) @ I_C = 3.0\text{A}$
- Complement to Type 2SD635
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	60	V
V_{CEO}	Collector-Emitter Voltage	60	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_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 50mA; I _B = 0	60			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 6mA			1.5	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 7A; I _B = 14mA			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 6mA			2.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 60V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			4.0	mA
h _{FE-1}	DC Current Gain	I _C = 3A ; V _{CE} = 3V	2000		15000	
h _{FE-2}	DC Current Gain	I _C = 7A ; V _{CE} = 3V	1000			

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