

isc Silicon NPN Darlington Power Transistor

2SD670

DESCRIPTION

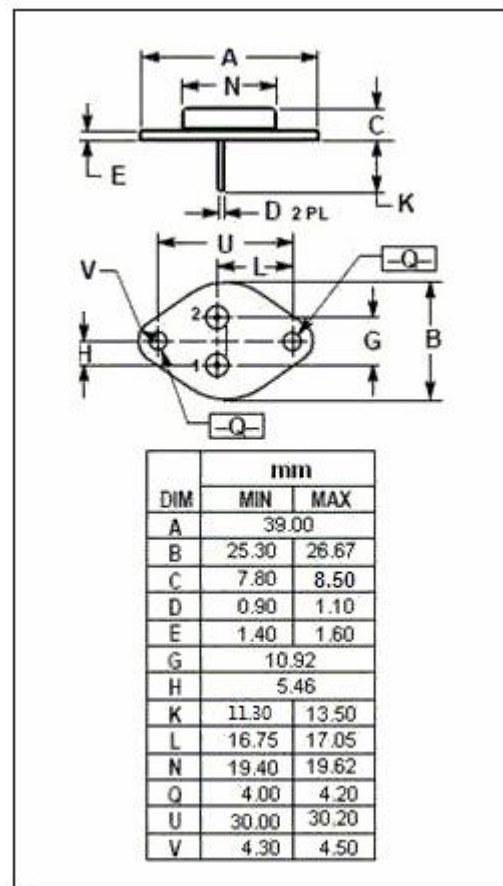
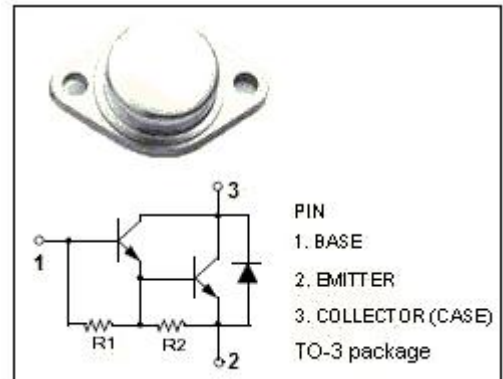
- Collector-Emitter Sustaining Voltage-
 $V_{CEO(SUS)} = 100V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 2.0V(\text{Max.}) @ I_C = 10A$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio output stages and general 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	7	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	20	A
I_B	Base Current-Continuous	0.5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$



isc Silicon NPN Darlington Power Transistor**2SD670****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	100			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 40mA			2	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 10A ; V _{CE} = 3V			2.5	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 100V; I _B = 0			0.5	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 100V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5	mA
h _{FE-1}	DC Current Gain	I _C = 3 A ; V _{CE} = 3V	1000			
h _{FE-2}	DC Current Gain	I _C = 8 A ; V _{CE} = 3V	1000		20000	
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f _{test} = 1MHz		300		pF
Switching times						
t _{on}	Turn-on Time	I _C = 10A; I _{B1} = -I _{B2} = 40mA; V _{CC} = 12V		2.0		μ s
t _{off}	Turn-off Time			5.0		μ s

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