

isc Silicon NPN Power Transistor

2SC2834

DESCRIPTION

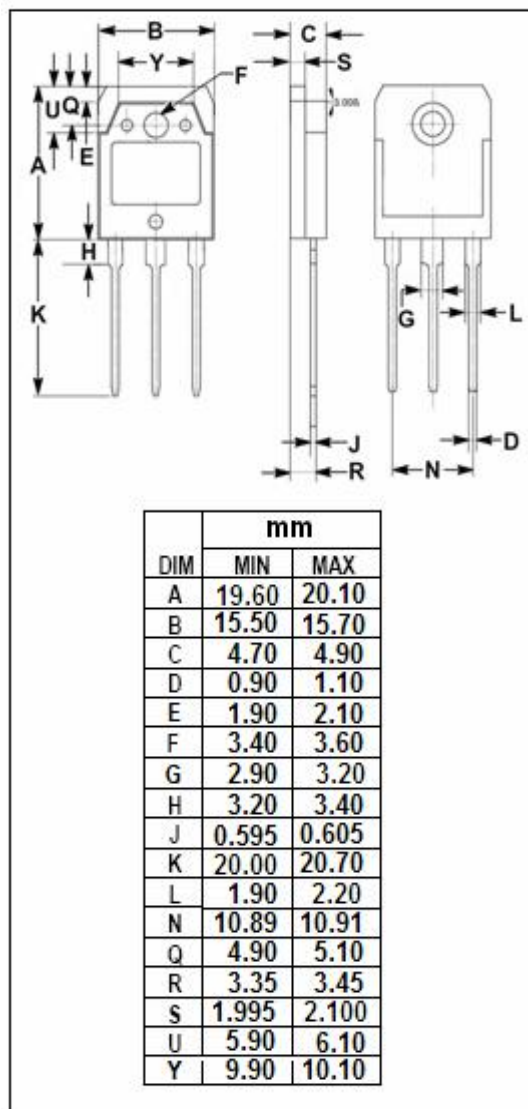
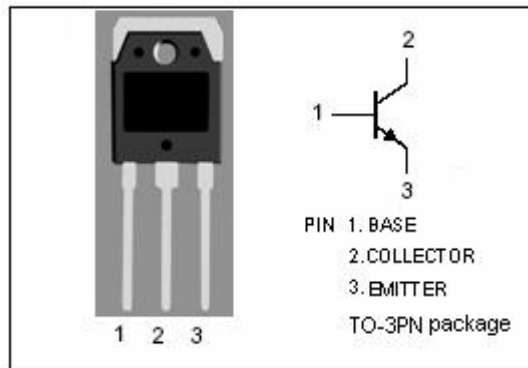
- High Breakdown Voltage-
: $V_{(BR)CBO} = 800V(\text{Min})$
- High Switching Speed
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	800	V
V_{CEO}	Collector-Emitter Voltage	500	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	4	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	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC2834****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C =10mA; I _B =0	500			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 1A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 800V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 0.1A; V _{CE} = 5V	15			
h _{FE-2}	DC Current Gain	I _C = 5A; V _{CE} = 5V	8			
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 10V		3.5		MHz

Switching times

t _{on}	Turn-on Time	I _C = 5A, I _{B1} = -I _{B2} = 1A; V _{CC} = 200V			1.0	μs
t _{stg}	Storage Time				2.5	μs
t _f	Fall Time				1.0	μs

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