

isc Silicon PNP Power Transistor

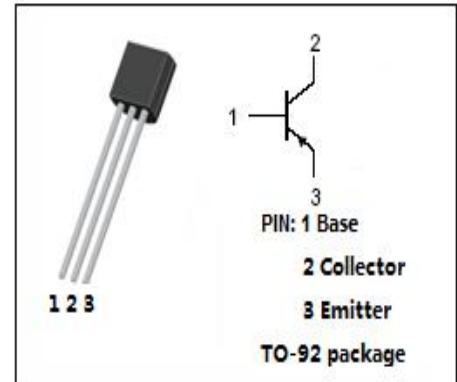
2N3906

DESCRIPTION

- Low voltage(max .40V)
- Low current (max .200mA)
- NPN complement to Type 2N3904.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

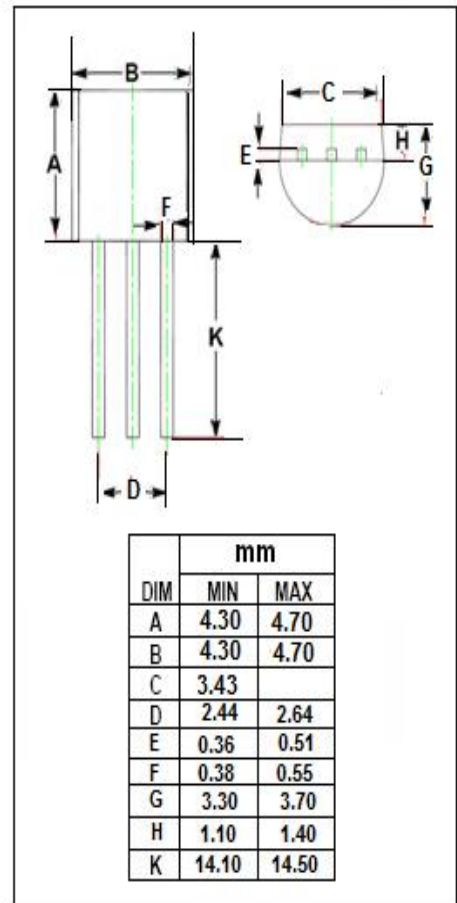
APPLICATIONS

- Designed for high-speed switching
- Amplifier applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-200	mA
I_{CM}	Collector Current-Peak	-300	mA
I_{BM}	Peak base current	-100	mA
P_{tot}	Total Power Dissipation	-500	mW
T_J	Junction Temperature	-65~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~150	$^{\circ}\text{C}$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	250	K/W

isc Silicon PNP Power Transistor**2N3906****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-10mA, I _E =0	-40		V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C = -1mA, I _B =0	-40		V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E = -10mA, I _C =0	-5		V
V _{CE(sat)1}	Collector-Emitter Saturation Voltage	I _C = -10mA; I _B = -1mA		-0.2	V
V _{CE(sat)2}	Collector-Emitter Saturation Voltage	I _C = -50mA; I _B = -5mA		-0.2	V
V _{BE(sat)1}	base-emitter saturation voltage	I _C = -10mA; I _B =-1mA		-0.85	V
V _{CE(sat)2}	Collector-Emitter Saturation Voltage	I _C = -50mA; I _B = -5mA		-0.95	V
I _{CBO}	collector cut-off current	V _{CB} =-30 V, I _E = 0		-0.05	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} =-6V; I _C =0		-0.05	μA
h _{FE-1}	DC Current Gain	I _C = -0.1 mA ; V _{CE} = -1V	60		
h _{FE-2}	DC Current Gain	I _C =- 1 mA ; V _{CE} =-1V	80		
h _{FE-3}	DC Current Gain	I _C = -10 mA ; V _{CE} =-1V	100	300	
h _{FE-4}	DC Current Gain	I _C = -50 mA ; V _{CE} =-1V	60		
h _{FE-5}	DC Current Gain	I _C =-100 mA ; V _{CE} =-1V	30		

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