

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Power Transistor

2N4910

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 40V(\text{Min})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 0.6V(\text{Max.}) @ I_C = 1A$
- Wide Area of Safe Operation

APPLICATIONS

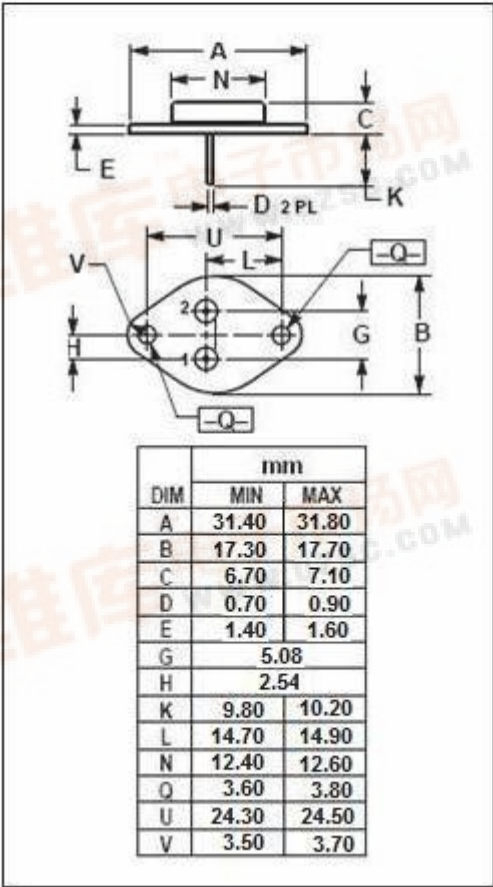
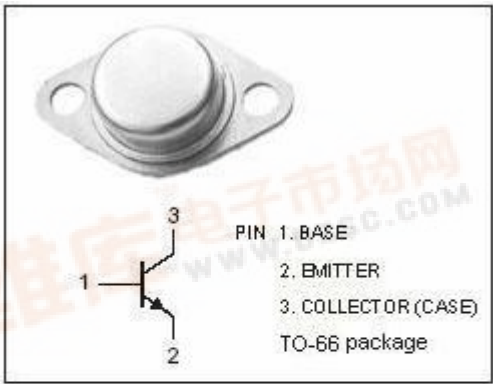
- Designed for driver circuits, switching and amplifier applications.

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

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	1	A
I_{CM}	Collector Current-Peak	4	A
I_B	Collector Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	25	W
T_J	Junction Temperature	200	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	7.0	$^{\circ}C/W$



isc Silicon NPN Power Transistor**2N4910****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 = 100mA; I _B = 0	40			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			0.6	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			1.3	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 1A ; V _{CE} = 1V			1.3	V
I _{CEX}	Collector Cutoff Current	V _{CE} = 40V; V _{BE(off)} = 1.5V V _{CE} = 40V; V _{BE(off)} = 1.5V; T _C =150°C			0.1 1.0	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 20V; I _B = 0			0.5	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 40V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1.0	mA
h _{FE-1}	DC Current Gain	I _C = 50mA ; V _{CE} = 1V	40			
h _{FE-2}	DC Current Gain	I _C = 500mA ; V _{CE} = 1V	20		100	
h _{FE-3}	DC Current Gain	I _C = 1A ; V _{CE} = 1V	10			
f _T	Current-Gain—Bandwidth Product	I _C = 0.25A; V _{CE} = 10V, f _{test} = 1MHz	3			MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 100kHz			100	pF