

isc Silicon NPN Power Transistor

2SD1912

DESCRIPTION

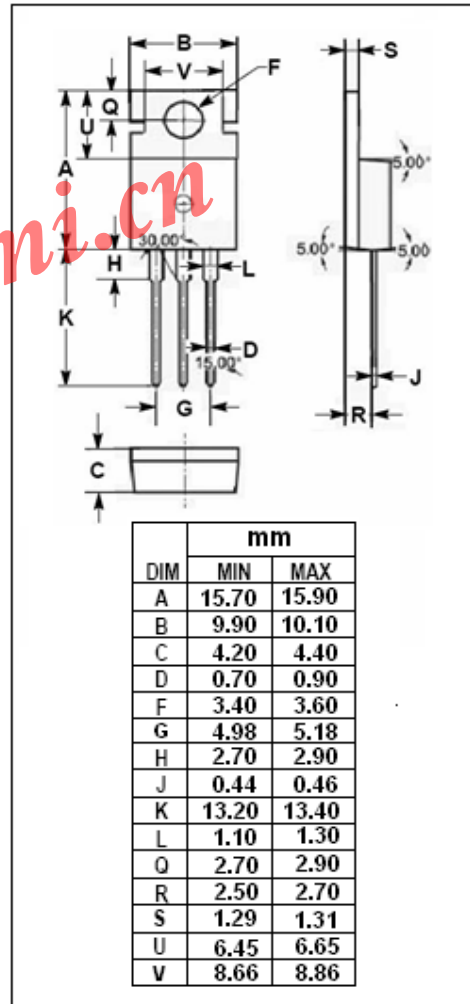
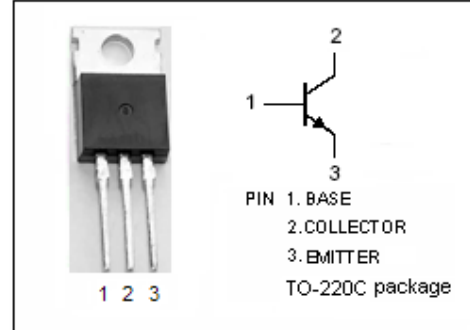
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Wide Area of Safe Operation
- Low Collector Saturation Voltage

APPLICATIONS

- Designed for low frequency power amplifier 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	6	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_a=25^{\circ}\text{C}$	1.75	W
	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	30	
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SD1912****ELECTRICAL CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 5mA; R _{BE} = ∞	60			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.2A			1.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 0.5A; V _{CE} = 5V			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 40V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.5A; V _{CE} = 5V	70		280	
h _{FE-2}	DC Current Gain	I _C = 3A; V _{CE} = 5V	20			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V, f= 1MHz		40		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 5V		100		MHz

◆ **h_{FE-1} Classifications**

Q	R	S
70-140	100-200	140-280