

isc Silicon NPN Power Transistor

2SD1105

DESCRIPTION

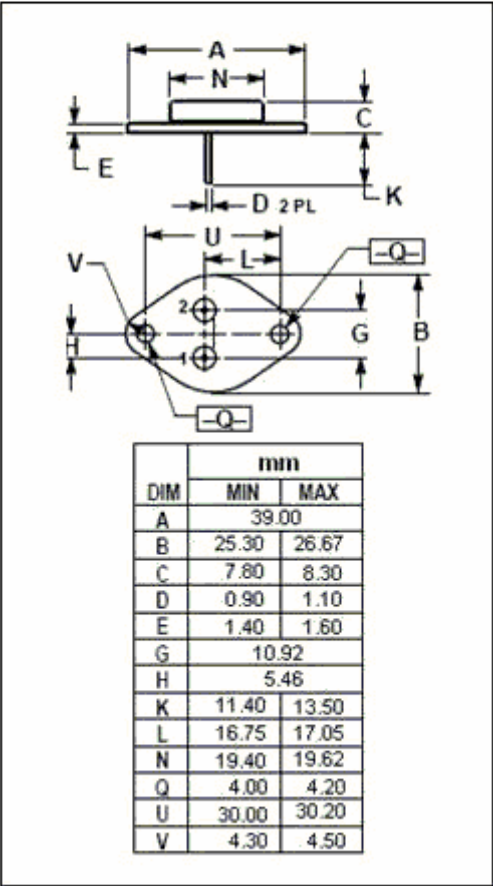
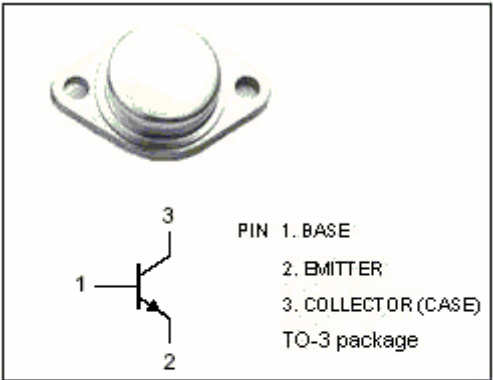
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO}$ = 80V (Min)
- Wide Area of Safe Operation
- High Power and High Reliability

APPLICATIONS

- Designed for high power AF amplifier applications.

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	30	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	200	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}\text{C}$



ISC Silicon NPN Power Transistor**2SD1105****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}$; $I_B=0$	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=5\text{mA}$; $I_C=0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}$; $I_B=0.5\text{A}$			2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=5\text{A}$; $V_{CE}=4\text{V}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=40\text{V}$; $I_E=0$			30	μA
h_{FE-1}	DC Current Gain	$I_C=1\text{A}$; $V_{CE}=4\text{V}$	40			
h_{FE-2}	DC Current Gain	$I_C=5\text{A}$; $V_{CE}=4\text{V}$	40		120	
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}$; $V_{CE}=10\text{V}$		1		MHz

◆ **h_{FE-2} Classifications**

P	O
40-80	60-120