

isc Silicon PNP Power Transistor

BDX14A

DESCRIPTION

- Continuous Collector Current- $I_C = -4A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = -55V(\text{Min.})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

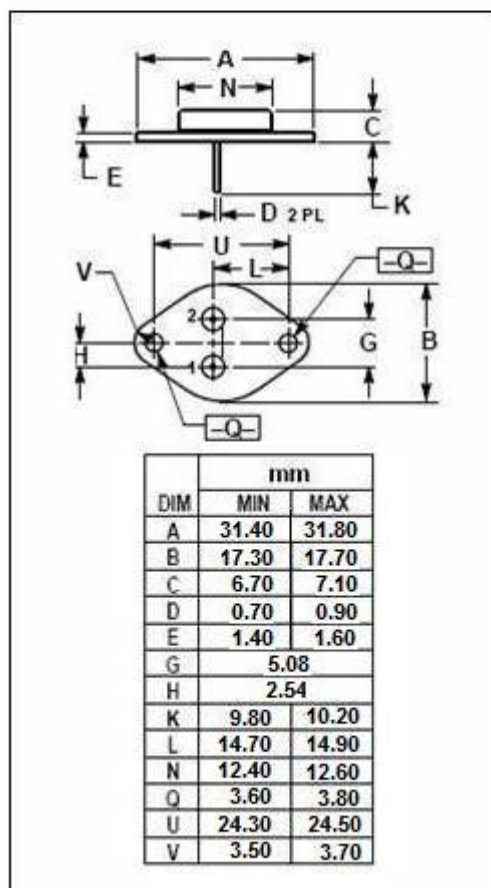
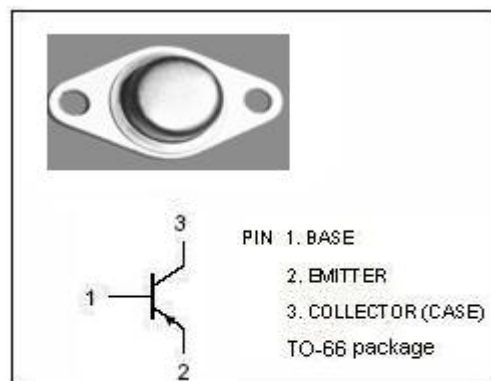
- Designed for LF Large Signal Power Amplification and Medium Current Switching

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-90	V
V_{CER}	Collector-Emitter Voltage $R_{BE} = 100\ \Omega$	-60	V
V_{CEO}	Collector-Emitter Voltage	-55	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-4	A
I_B	Base Current-Continuous	-2	A
P_C	Collector Power Dissipation@ $T_C = 25^\circ\text{C}$	29	W
T_J	Junction Temperature	200	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	6.0	$^\circ\text{C/W}$



isc Silicon PNP Power Transistor**BDX14A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -30\text{mA}; I_B = 0$	-55		V
$V_{CER(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -100\text{mA}; R_{BE} = 100\ \Omega$	-60		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}; I_C = 0$	-7		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -0.5\text{A}; I_B = -50\text{mA}$		-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -0.5\text{A}; V_{CE} = -4\text{V}$		-1.7	V
I_{CEX}	Collector Cutoff Current	$V_{CE} = -90\text{V}; V_{BE} = 1.5\text{V}$ $V_{CE} = -30\text{V}; V_{BE} = 1.5\text{V}, T_C = 150^{\circ}\text{C}$		-1.0 -5.0	mA
h_{FE}	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -4\text{V}$	25	250	
f_T	Current Gain-Bandwidth Product	$I_C = -0.2\text{A}; V_{CE} = -10\text{V}$	4		MHz

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