

**isc Silicon PNP Power Transistor**

**BDX16**

**DESCRIPTION**

- Continuous Collector Current- $I_C = -3A$
- Collector Power Dissipation-  
:  $P_C = 25W @ T_C = 25^\circ C$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = -140V(\text{Min})$

**APPLICATIONS**

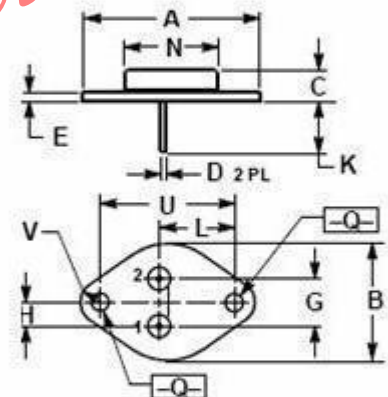
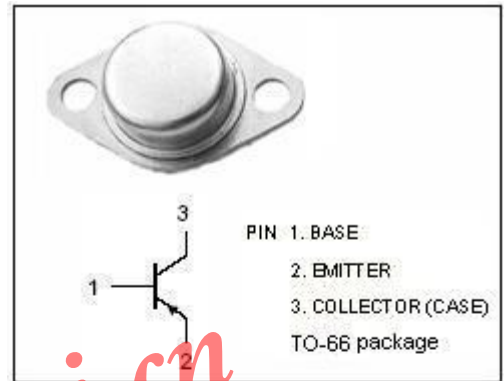
- Designed for use in general purpose switching and linear amplifier applications requiring high breakdown voltages.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CER}$	Collector-Emitter Voltage $R_{BE} = 100 \Omega$	-150	V
$V_{CEO}$	Collector-Emitter Voltage	-140	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-3	A
$I_{CM}$	Collector Current-Peak	-4	A
$I_B$	Base Current-Continuous	-2	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	25	W
$T_J$	Junction Temperature	200	$^\circ C$
$T_{stg}$	Storage Temperature	-65~200	$^\circ C$

**THERMAL CHARACTERISTICS**

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



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

**isc Silicon PNP Power Transistor****BDX16****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	$I_C = -100\text{mA}; I_B = 0$	-140			V
$V_{(BR)CER}$	Collector-Emitter Breakdown Voltage	$I_C = -100\text{mA}; R_{BE} = 100\ \Omega$	-150			V
$V_{(BR)CEX}$	Collector-Emitter Breakdown Voltage	$I_C = -100\text{mA}; V_{BE} = 1.5\text{V}$	-160			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	$V_{CE} = -140\text{V}; V_{BE} = 1.5\text{V}$ $V_{CE} = -140\text{V}; V_{BE} = 1.5\text{V}, T_C = 150^\circ\text{C}$			-1.0 -5.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -7\text{V}; I_C = 0$			-1.0	mA
$h_{FE}$	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -4\text{V}$	20		80	
$f_T$	Current Gain-Bandwidth Product	$I_C = -0.2\text{A}; V_{CE} = -10\text{V}$		4		MHz