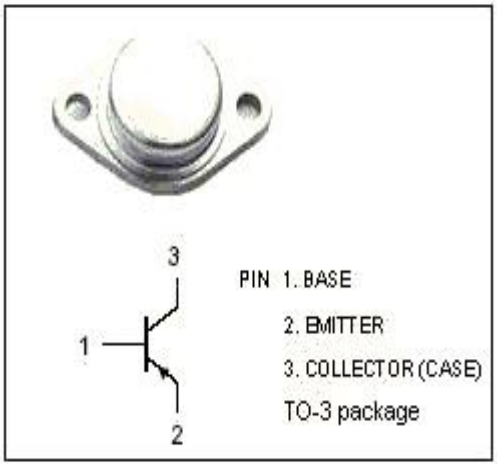
isc Silicon PNP Power Transistor — BDX92/94/96

DESCRIPTION

- Collector Current -I_C= -10A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$ = -60V(Min)- BDX92
  -80V(Min)- BDX94
  -100V(Min)- BDX96
- Complement to Type BDX91/93/95
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

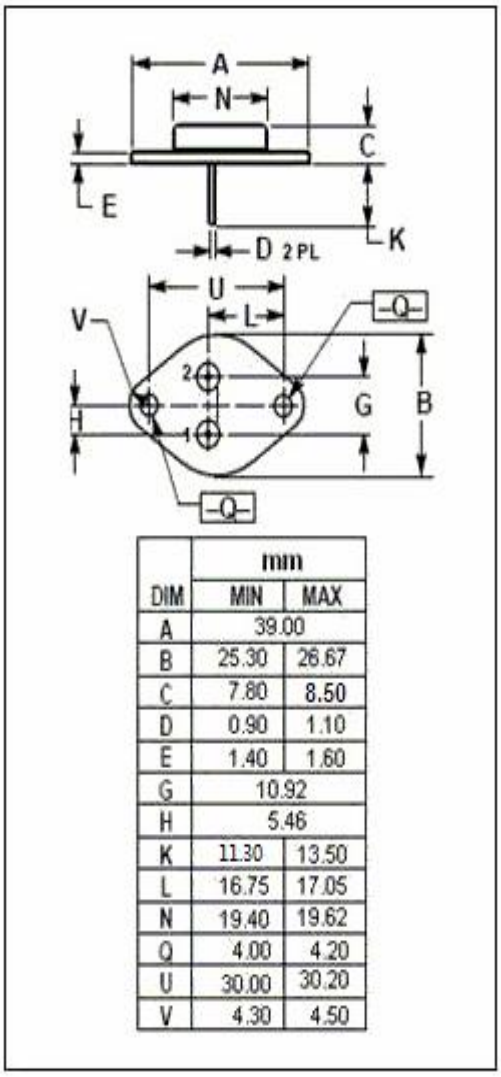


APPLICATIONS

- Designed for use in general purpose power amplifier and switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BDX92	-60	V
		BDX94	-80	
		BDX96	-100	
V_{CEO}	Collector-Emitter Voltage	BDX92	-60	V
		BDX94	-80	
		BDX96	-100	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-10	A
I_{CM}	Collector Current-Peak		-15	A
P_C	Collector Power Dissipation @ T_C=25℃		90	W
T_J	Junction Temperature		200	℃
T_{stg}	Storage Temperature Range		-65~200	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.94	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	BDX92	I_C= -30mA ;I_B=0	-45			V
		BDX94		-60			
		BDX96		-80			
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage		I_C= -3A; I_B= -0.3A			-0.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage		I_C= -5A; I_B= -1A			-1.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage		I_C= -3A; I_B= -0.3A			-1.5	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage		I_C= -5A; I_B= -1A			-2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage		I_C= -3A; V_{CE}= -2V			-1.4	V
I_{CBO}	Collector Cutoff Current	BDX92	V_{CB}= -60V; I_E= 0 V_{CB}= -30V; I_E= 0; T_C= 150℃			-0.1 -2.0	mA
		BDX94	V_{CB}= -80V; I_E= 0 V_{CB}= -40V; I_E= 0; T_C= 150℃			-0.1 -2.0	
		BDX96	V_{CB}= -100V; I_E= 0 V_{CB}= -50V; I_E= 0; T_C= 150℃			-0.1 -2.0	
I_{CEO}	Collector Cutoff Current	BDX92	V_{CE}= -60V;I_B= 0			-0.2	mA
		BDX94	V_{CE}= -80V;I_B= 0				
		BDX96	V_{CE}= -100V;I_B= 0				
I_{EBO}	Emitter Cutoff Current		V_{EB}= -5V; I_C= 0			-0.1	mA
h_{FE-1}	DC Current Gain		I_C= -3A; V_{CE}= -2V	20			
h_{FE-2}	DC Current Gain		I_C= -5A; V_{CE}= -2V	10			
f_T	Current-Gain—Bandwidth Product		I_C= -1A; V_{CE}= -10V	4			MHz
Switching times							
t_{on}	Turn-on Time		I_C= -3A; I_{B1}= -I_{B2}= -0.3A			1.0	μs
t_{off}	Turn-off Time					2.0	μs

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