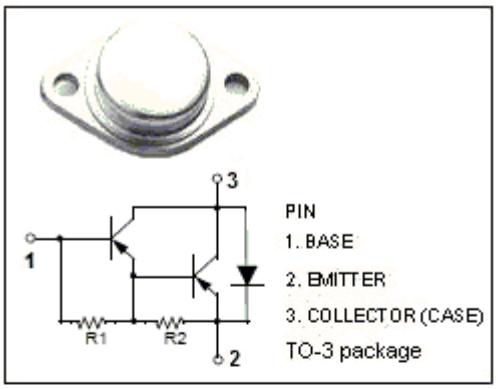
isc Silicon PNP Darlington Power Transistor BDX86/A/B/C

DESCRIPTION

- High DC Current Gain-
  : h_{FE}= 750(Min)@ I_C= -3A
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = -45V(Min)- BDX86; -60V(Min)- BDX86A
  -80V(Min)- BDX86B; -100V(Min)- BDX86C
- Complement to Type BDX85/A/B/C

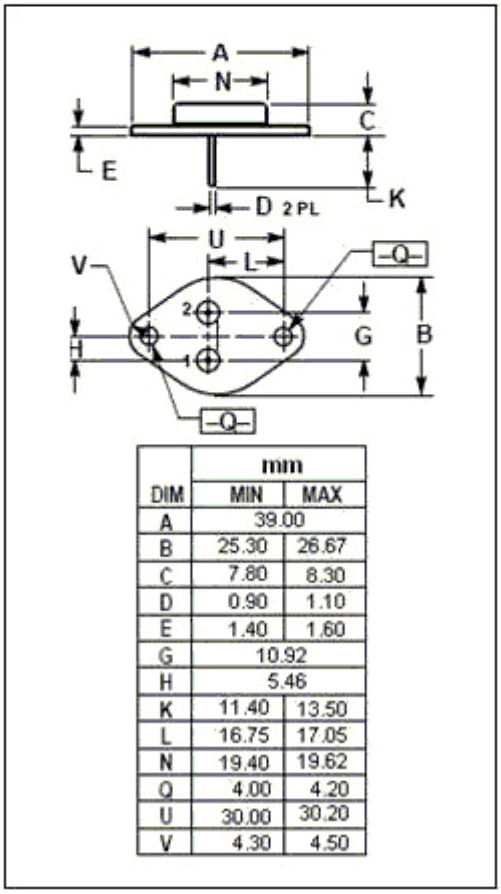
APPLICATIONS

- Designed for use in power linear and switching applications.



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BDX86	-45	V
		BDX86A	-60	
		BDX86B	-80	
		BDX86C	-100	
V_{CEO}	Collector-Emitter Voltage	BDX86	-45	V
		BDX86A	-60	
		BDX86B	-80	
		BDX86C	-100	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-10	A
I_{CM}	Collector Current-Peak		-15	A
I_B	Base Current		-100	mA
P_C	Collector Power Dissipation @ T_C=25℃		100	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	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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	1.75	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BDX86	I_C= -100mA; I_B= 0	-45			V
		BDX86A		-60			
		BDX86B		-80			
		BDX86C		-100			
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage		I_C= -4A; I_B= -16mA			-2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage		I_C= -8A; I_B= -40mA			-4.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		I_C= -8A; I_B= -80mA			-4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage		I_C= -4A; V_{CE}= -3V			-2.8	V
I_{CBO}	Collector Cutoff Current	BDX86	V_{CB}= -45V; I_E= 0 V_{CB}= -45V; I_E= 0; T_C= 150℃			-0.5 -5.0	mA
		BDX86A	V_{CB}= -60V; I_E= 0 V_{CB}= -60V; I_E= 0; T_C= 150℃			-0.5 -5.0	
		BDX86B	V_{CB}= -80V; I_E= 0 V_{CB}= -80V; I_E= 0; T_C= 150℃			-0.5 -5.0	
		BDX86C	V_{CB}= -100V; I_E= 0 V_{CB}= -100V; I_E= 0; T_C= 150℃			-0.5 -5.0	
I_{CEO}	Collector Cutoff Current	BDX86	V_{CE}= -22V; I_B= 0			-1.0	mA
		BDX86A	V_{CE}= -30V; I_B= 0				
		BDX86B	V_{CE}= -40V; I_B= 0				
		BDX86C	V_{CE}= -50V; I_B= 0				
I_{EBO}	Emitter Cutoff Current		V_{EB}= -5V; I_C= 0			-2.0	mA
h_{FE-1}	DC Current Gain		I_C= -3A; V_{CE}= -3V	1000			
h_{FE-2}	DC Current Gain		I_C= -4A; V_{CE}= -3V	750		18000	
h_{FE-3}	DC Current Gain		I_C= -8A; V_{CE}= -4V	200			