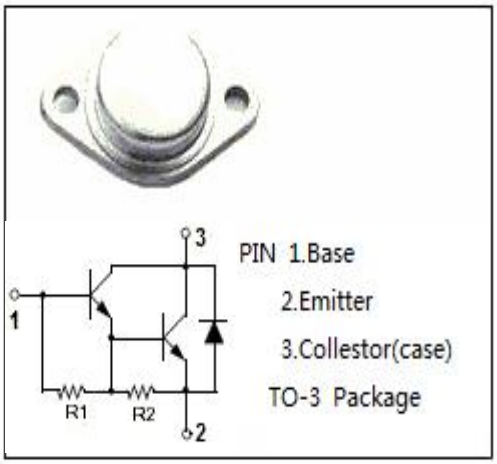
isc Silicon NPN Darlington Power Transistor BDX67/A/B/C

DESCRIPTION

- High DC Current Gain-
  : h_{FE}= 1000(Min)@ I_C= 10A
- Low Saturation Voltage
- Complement to Type BDX66/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

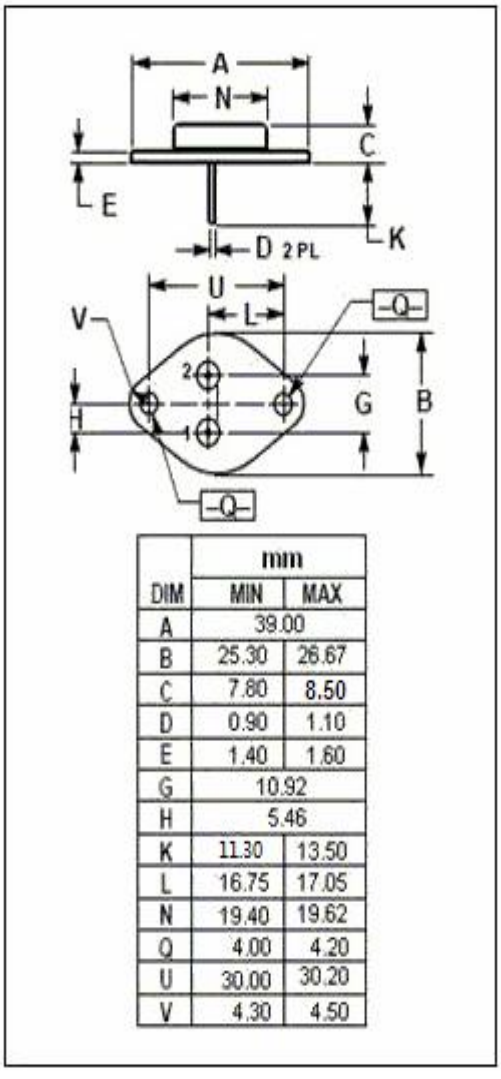


APPLICATIONS

- Designed for audio output stages and general amplifier and switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BDX67	80	V
		BDX67A	100	
		BDX67B	120	
		BDX67C	140	
V_{CEO}	Collector-Emitter Voltage	BDX67	60	V
		BDX67A	80	
		BDX67B	100	
		BDX67C	120	
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current-Continuous		16	A
I_{CM}	Collector Current-Peak		20	A
I_B	Base Current		250	mA
P_C	Collector Power Dissipation @ T_C=25℃		150	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	1.17	℃/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	BDX67	I_C= 50mA ; L= 25mH	60			V
		BDX67A		80			
		BDX67B		100			
		BDX67C		120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		I_C= 10A; I_B= 40mA			2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage		I_C= 10A; V_{CE}= 3V			2.5	V
I_{CBO}	Collector Cutoff Current	BDX67	V_{CB}= 80V; I_E= 0 V_{CB}= 80V; I_E= 0; T_C=150℃			1.0 5.0	mA
		BDX67A	V_{CB}= 100V; I_E= 0 V_{CB}= 100V; I_E= 0; T_C=150℃			1.0 5.0	
		BDX67B	V_{CB}= 120V; I_E= 0 V_{CB}= 120V; I_E= 0; T_C=150℃			1.0 5.0	
		BDX67C	V_{CB}= 140V; I_E= 0 V_{CB}= 140V; I_E= 0; T_C=150℃			1.0 5.0	
I_{CEO}	Collector Cutoff Current		V_{CE}= 1/2V_{CEO}(Max); I_B=0			1.0	mA
I_{EBO}	Emitter Cutoff Current		V_{EB}= 5V; I_C=0			5.0	mA
h_{FE-1}	DC Current Gain		I_C= 1A ; V_{CE}= 3V		5200		
h_{FE-2}	DC Current Gain		I_C= 10A ; V_{CE}= 3V	1000			
h_{FE-3}	DC Current Gain		I_C= 16A ; V_{CE}= 3V		4000		
V_{ECF}	C-E Diode Forward Voltage		I_F= 10A		2.5		V
C_{OB}	Output Capacitance		I_E= 0 ; V_{CB}= 10V,f_{test}= 1.0MHz		300		pF