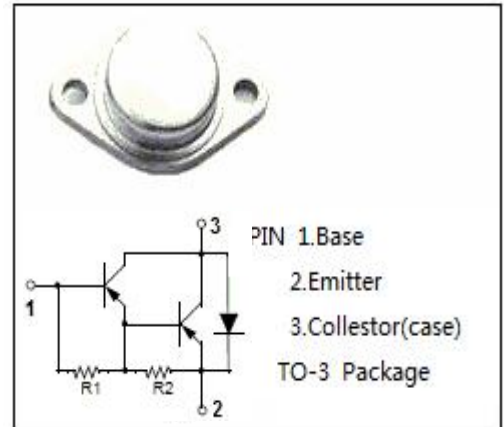


isc Silicon PNP Darlington Power Transistor
BDX68/A/B/C
DESCRIPTION

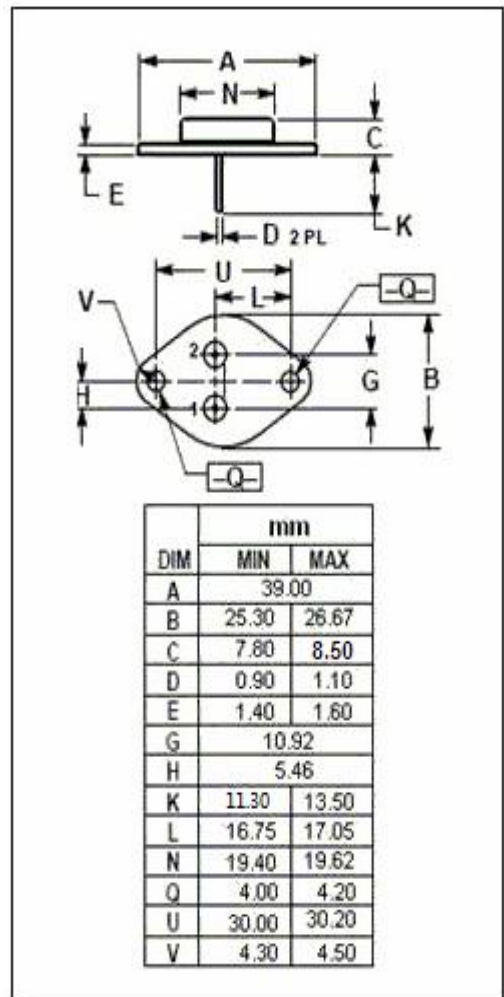
- High DC Current Gain-
: $h_{FE} = 1000(\text{Min}) @ I_C = -20\text{A}$
- Low Saturation Voltage
- Complement to Type BDX69/A/B/C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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


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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CBO}	Collector-Base Voltage	BDX68	-80	V
		BDX68A	-100	
		BDX68B	-120	
		BDX68C	-140	
V_{CEO}	Collector-Emitter Voltage	BDX68	-60	V
		BDX68A	-80	
		BDX68B	-100	
		BDX68C	-120	
V_{EBO}	Emitter-Base Voltage	-5	V	
I_C	Collector Current-Continuous	-25	A	
I_{CM}	Collector Current-Peak	-40	A	
I_B	Base Current	-500	mA	
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	150	W	
T_J	Junction Temperature	200	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range	-65~200	$^\circ\text{C}$	


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.875	$^\circ\text{C}/\text{W}$

isc Silicon PNP Darlington Power Transistor
BDX68/A/B/C
ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	BDX68	I _C = -50mA; L= 25mH			V	
		BDX68A		-60			
		BDX68B		-80			
		BDX68C		-100			
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -20A; I _B = -80mA			-2.0	V	
V _{BE(on)}	Base-Emitter On Voltage	I _C = -20A; V _{CE} = -3V			-2.5	V	
I _{CBO}	Collector Cutoff Current	BDX68	V _{CB} = -80V; I _E = 0 V _{CB} = -40V; I _E = 0; T _C =200°C			-2.0 -10	mA
		BDX68A	V _{CB} = -100V; I _E = 0 V _{CB} = -50V; I _E = 0; T _C =200°C			-2.0 -10	
		BDX68B	V _{CB} = -120V; I _E = 0 V _{CB} = -60V; I _E = 0; T _C =200°C			-2.0 -10	
		BDX68C	V _{CB} = -140V; I _E = 0 V _{CB} = -70V; I _E = 0; T _C =200°C			-2.0 -10	
I _{CEO}	Collector Cutoff Current	BDX68	V _{CE} = -30V; I _B = 0			-6.0	mA
		BDX68A	V _{CE} = -40V; I _B = 0				
		BDX68B	V _{CE} = -50V; I _B = 0				
		BDX68C	V _{CE} = -60V; I _B = 0				
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-10	mA	
h _{FE-1}	DC Current Gain	I _C = -5A; V _{CE} = -3V		3000			
h _{FE-2}	DC Current Gain	I _C = -20A; V _{CE} = -3V	1000				
h _{FE-3}	DC Current Gain	I _C = -30A; V _{CE} = -3V		1000			
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = -10V, f _{test} = 1.0MHz		600		pF	

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