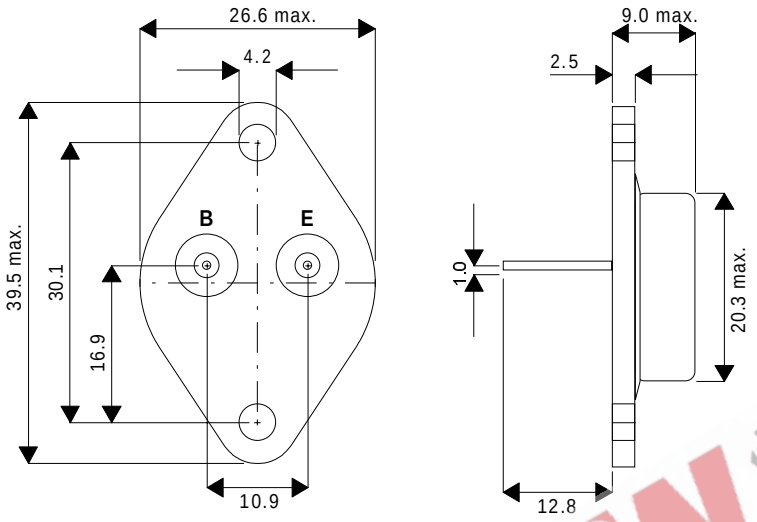
BDX68
BDX68A
BDX68B
BDX68C

MECHANICAL DATA
Dimensions in mm



TO3 Package.
Case is collector.

PNP DARLINGTON POWER TRANSISTOR

PNP Darlington transistors for audio output stages and general amplifier and switching applications.

NPN complements are:
BDX69, BDX69A, BDX69B, BDX69C.

EEPW .com.cn

ABSOLUTE MAXIMUM RATINGS

	(T_{case} = 25°C unless otherwise stated)	BDX 68	BDX 68A	BDX 68B	BDX 68C
V_{CBO}	Collector – Base Voltage (Open Emitter)	–60V	–80V	–100V	–120V
V_{CEO}	Collector – Emitter Voltage (Open Base)	–60V	–80V	–100V	–120V
V_{EBO}	Emitter – Base Voltage (Open Collector)	–5V	–5V	–5V	–5V
I_C	Collector Current	–25A			
I_{CM}	Collector Current (Peak)	–40A			
I_B	Base Current	–500mA			
P_{tot}	Total Power Dissipation at T_{case}= 25°C	200W			
T_J	Maximum Junction Temperature	200°C			
T_{STG}	Storage Junction Temperature	–65 to 200°C			
$R_{\theta J\text{-}MB}$	Thermal Resistance, Junction to Mounting Base.	0.875°C / W			

Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.
E-mail: sales@semelab.co.uk Website: http://www.semelab.co.uk

SEME LAB

BDX68
BDX68A
BDX68B
BDX68C

ELECTRICAL CHARACTERISTICS (T_J = 25°C, unless otherwise stated)

	Parameter	Test Conditions		Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	I_E = 0	$V_{CB} = V_{CBOmax}$			2	mA
		I_E = 0	$V_{CB} = ½V_{CBOmax}$ T_J = 200°C			10	
I_{CEO}	Collector Cut-off Current	I_B = 0	$V_{CE} = ½V_{CEOmax}$			6	mA
I_{EBO}	Emitter Cut-off Current	I_C = 0	V_{EB} = –5V			10	mA
h_{FE*}	D.C. Current Gain	I_C = –5A	V_{CE} = –3V		3000		—
		I_C = –20A	V_{CE} = –3V	1000			
		I_C = –30A	V_{CE} = –3V		1000		
V_{BE*}	Base – Emitter Voltage	I_C = –20A	V_{CE} = –3V			2.5	V
V_{CEsat*}	Collector - Emitter Saturation Voltage	I_C = –20A	I_B = –80mA			2	V
C_c	Collector Capacitance	$I_E = I_e$ = 0 f = 1MHz	V_{CB} = –10V		600		pF
f_{hfe}	Cut-off Frequency	I_C = –10A	V_{CE} = –3V		60		kHz
$\|h_{fe}\|$	Small Signal Current Gain	I_C = –10A f = 1MHz	V_{CE} = –3V		20		—
V_F	Diode, Forward Voltage	I_F = 20A			2		V
t_{on}	Turn–on Time	I_{Con} = –20A			1		µs
t_{off}	Turn–off Time	$I_{Bon} = -I_{Boff}$ = –80mA			3.5		

* Pulse Test: t_p < 300µs, δ < 2%

EEPW .com.cn