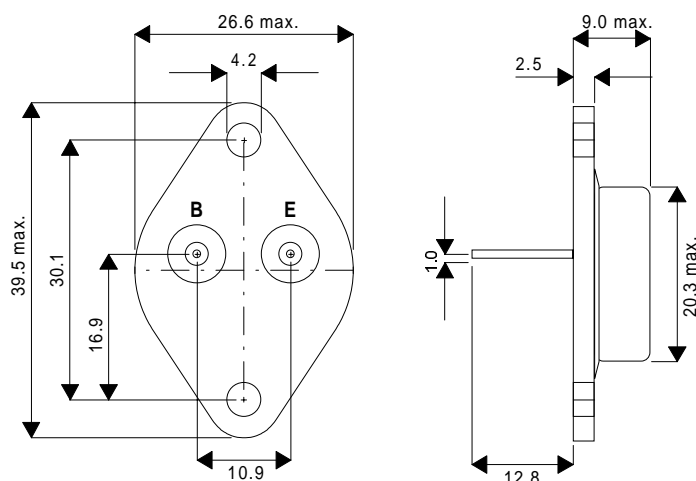


MECHANICAL DATA

Dimensions in mm



NPN EPITAXIAL BASE DARLINGTON POWER TRANSISTOR

NPN epitaxial base transistors in monolithic Darlington circuit for audio output stages and general amplifier and switching applications.

PNP complements are:
 BDX66, BDX66A, BDX66B, BDX66C.

TO3 Package.

Case connected to collector.

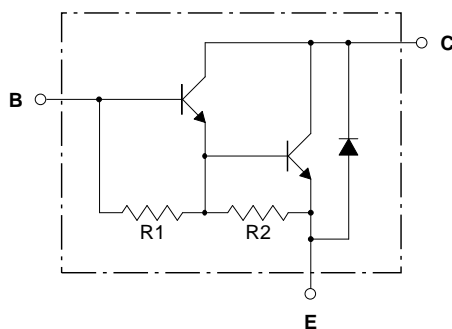
ABSOLUTE MAXIMUM RATINGS (T_{case}=25°C unless otherwise stated)

		BDX 67	BDX 67A	BDX 67B	BDX 67C	
V _{CEO}	Collector - emitter voltage (open base)	60	80	100	120	V
V _{CBO}	Collector - base voltage (open emitter)	80	100	120	140	V
V _{EBO}	Emitter - base voltage (open collector)	5	5	5	5	V
I _C	Collector current	16				A
I _{CM}	Collector current (peak)	20				A
I _B	Base current	250				mA
P _{tot}	Total power dissipation at T _{mb} = 25°C	150				W
T _j	Maximum junction temperature	200				°C
T _{stj}	Storage junction temperature	-65 to +200				°C
R _{th j-mb}	Thermal resistance, junction to mounting base.	1.17				K/ W

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$, unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit.
I_{CBO} Collector cut-off current	$I_E = 0$, $V_{CB} = V_{CEOmax}$ $I_E = 0$, $V_{CB} = \frac{1}{2}V_{CBOmax}$, $T_j = 200^\circ\text{C}$			1 5	mA
I_{CEO} Collector cut-off current	$I_B = 0$, $V_{CE} = \frac{1}{2}V_{CEOmax}$			1	mA
I_{EBO} Emitter cut-off current	$I_C = 0$, $V_{EB} = 5V$			5	mA
h_{FE} D.C. current gain (note 1)	$I_C = 1A$, $V_{CE} = 3V$		5200		
	$I_C = 10A$, $V_{CE} = 3V$	1000			
	$I_C = 16A$, $V_{CE} = 3V$		4000		
V_{BE} Base - emitter voltage (note 1)	$I_C = 10A$, $V_{CE} = 3V$			2.5	V
V_{CEsat} Collector - emitter saturation voltage	$I_C = 10A$, $I_B = 40mA$			2	V
C_c Collector capacitance	$I_E = I_e = 0$, $V_{CB} = 10V$ $f = 1MHz$		300		pF
f_{hfe} Cut-off frequency	$I_C = 5A$, $V_{CE} = 3V$		50		kHz
$E_{(BR)}$ Turn-off breakdown energy with inductive load	$-I_{Boff} = 0$, $I_{CC} = 7.8 A$ $t_p = 1ms$, $\delta < 1\%$	150			mJ
h_{fe} Small signal current gain	$I_C = 5A$, $V_{CE} = 3V$, $f = 1MHz$		20		V
V_F Diode, forward voltage	$I_F = 10A$		2.5		

Note 1: Measured under pulse conditions , $t_p < 300\mu s$, $\delta < 2\%$



R1 typ. 3K Ω
R2 typ. 80 Ω

Circuit Diagram