

DESCRIPTION

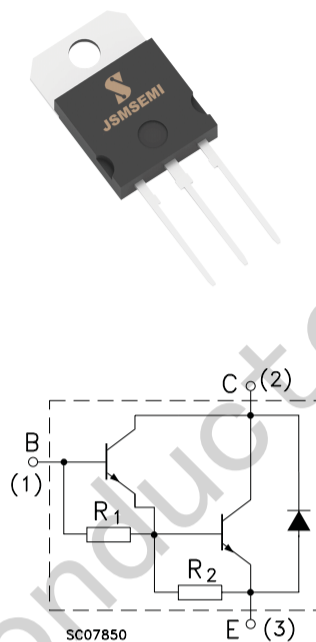
- With TO-220C package
- DARLINGTON
- High DC current gain
- Low collector saturation voltage
- Complement to type BDX54A/B/C

APPLICATIONS

- Designed for general-purpose amplifier and low-speed switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter


Absolute maximum ratings(Tc=25℃)

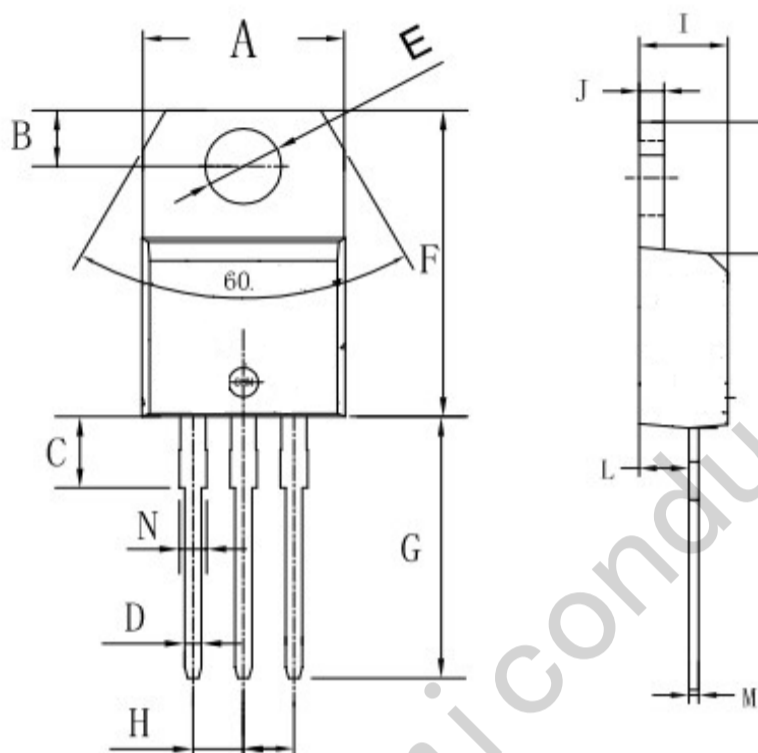
SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	BDX53A	Open emitter	60	V
		BDX53B		80	
		BDX53C		100	
V _{CEO}	Collector-emitter voltage	BDX53A	Open base	60	V
		BDX53B		80	
		BDX53C		100	
V _{EBO}	Emitter-base voltage		Open collector	5	V
I _C	Collector current-DC			8	A
I _{CM}	Collector current-Pulse			12	A
I _B	Base current-DC			120	mA
P _C	Collector power dissipation	T _C =25℃		65	W
		T _a =25℃		2	
T _j	Junction temperature			150	℃
T _{stg}	Storage temperature			-65~150	℃

CHARACTERISTICS

 T_j=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	BDX53A	I _C =-0.1A, I _B =0	60			V
		BDX53B		80			
		BDX53C		100			
V _{CEsat-1}	Collector-emitter saturation voltage		I _C =-3A, I _B =-12mA			2.0	V
V _{CEsat-2}	Collector-emitter saturation voltage		I _C =-5A, I _B =-20mA			4.0	V
V _{BE}	Base-emitter on voltage		I _C =-3.0A; V _{CE} =-3V			2.5	V
I _{CBO}	Collector cut-off current	BDX53A	V _{CB} =-60V, I _E =0			0.2	mA
		BDX53B	V _{CB} =-80V, I _E =0				
		BDX53C	V _{CB} =-100V, I _E =0				
I _{CEO}	Collector cut-off current	BDX53A	V _{CE} =-30V, I _B =0			0.5	mA
		BDX53B	V _{CE} =-40V, I _B =0				
		BDX53C	V _{CE} =-50V, I _B =0				
I _{EBO}	Emitter cut-off current		V _{EB} =-5V; I _C =0			2	mA
h _{FE-1}	DC current gain		I _C =-0.5A; V _{CE} =-3V	1000			
h _{FE-2}	DC current gain		I _C =-3.0A; V _{CE} =-3V	1000			
C _{ob}	Output capacitance		I _E =0; V _{CB} =-10V, f=0.1MHz			300	pF

TO-220AB PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	9.8	10.4	0.385	0.409
B	2.65	3.1	0.104	0.122
C	2.8	4.2	0.110	0.165
D	0.7	0.92	0.027	0.036
E	3.75	3.95	0.147	0.155
F	14.8	16.1	0.582	0.633
G	13.05	13.6	0.513	0.535
H	2.4	2.7	0.094	0.106
I	4.38	4.61	0.172	0.181
J	1.15	1.36	0.045	0.053
K	5.85	6.82	0.230	0.268
L	2.35	2.75	0.092	0.108
M	0.35	0.65	0.013	0.025
N	1.18	1.42	0.046	0.055