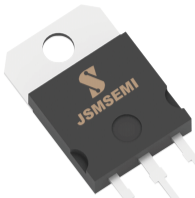
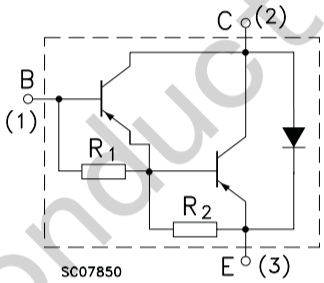
DESCRIPTION

- With TO-220C package
- DARLNGTON
- High DC durrent gain
- Low collector saturation voltage
- Complement to type BDX53A/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℃)

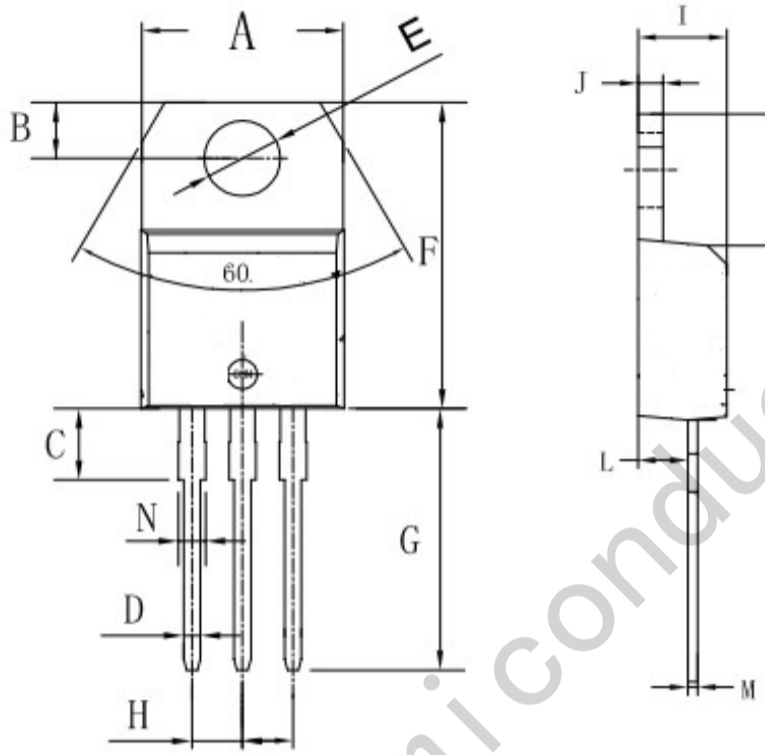
SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	BDX54A	Open emitter	-60	V
		BDX54B		-80	
		BDX54C		-100	
V_{CEO}	Collector-emitter voltage	BDX54A	Open base	-60	V
		BDX54B		-80	
		BDX54C		-100	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current-DC			-8	A
I_{CM}	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

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	BDX54A	I_C=-0.1A, I_B=0	-60			V
		BDX54B		-80			
		BDX54C		-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	BDX54A	V_{CB}=-60V, I_E=0			-0.2	mA
		BDX54B	V_{CB}=-80V, I_E=0				
		BDX54C	V_{CB}=-100V, I_E=0				
I_{CEO}	Collector cut-off current	BDX54A	V_{CE}=-30V, I_B=0			-0.5	mA
		BDX54B	V_{CE}=-40V, I_B=0				
		BDX54C	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