MOSPEC

SILICON POWER DARLINGTON TRANSISTORS

PNP

BDX54C

8 AMPERES
SILICON DARLINGTON
POWER TRANSISTOR
100 VOLTS
60 WATTS

DESCRIPTION：

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= -100V(Min)
- High DC Current Gain : hFE= 750(min) @IC= -3.0A
- Low Collector Saturation Voltage-
  : $V_{CE(SAT)}$= -2.0V(Max.)@ IC= -3.0A
- Complement to Type BDX53C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS：

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

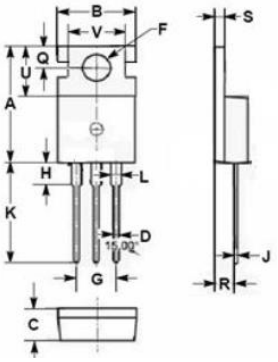
TO-220

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

Characteristic	Symbol	BDX54C	Unit
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-8	A
Collector Current-Peak	I_{CM}	-12	A
Base Current- Continuous	I_B	-0.2	A
Collector Power Dissipation @T_C=25℃	P_C	60	Watts
Junction Temperature	T_J	150	^oC
Storage Temperature	T_{STG}	-65 to +150	^oC

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{th\ j\text{-}c}$	1.92	$^oC/W$



PIN 1.BASE.
2.COLLECTOR
3.EMITTER

DIM	MILLIMETERS	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ELECTRICAL CHARATERISTICS (T_C=25^{O}C unless otherwise noted)

Characteristic	Symbol	Min.	Max	Unit
OFFCHARACTERISTICS				
Collector-Emitter Sustaining Voltage (I_C = -50 mA, I_B = 0)	$V_{CEO(SUS)}$	-100		V
Collector Cutoff Current (V_{CB} = -100 V, I_E = 0)	I_{CBO}		-0.2	mA
Collector Cutoff Current (V_{CE} = -50 V, I_B = 0)	I_{CEO}		-0.5	mA
Emitter Cutoff Current (V_{EB}= -5.0 V, I_C = 0)	I_{EBO}		-2.0	mA
ON CHARACTERISTICS				
DC Current Gain (I_C = -3.0 A, V_{CE} = -3.0 V)	h_{FE}	750		
Collector-Emitter Saturation Voltage (I_C = -3.0 A, I_B = -12 mA)	$V_{CE(SAT)}$		-2.0	V
Base-Emitter Saturation Voltage (I_C = -3.0 A, I_B = -12 mA)	$V_{BE(SAT)}$		-2.5	V