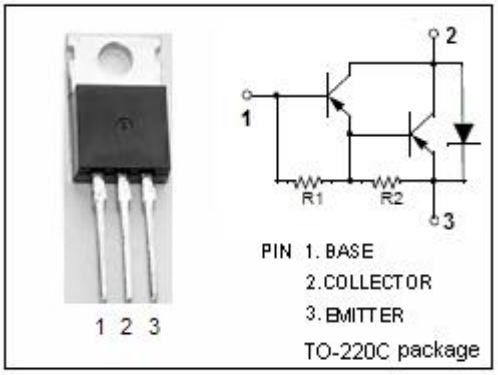
isc Silicon PNP Darlington Power Transistor — BDX54F

DESCRIPTION

- Collector Current -I_C= -8A
- High DC Current Gain-
  : h_{FE}= 500(Min)@ I_C= -2A
- Complement to Type BDX53F
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

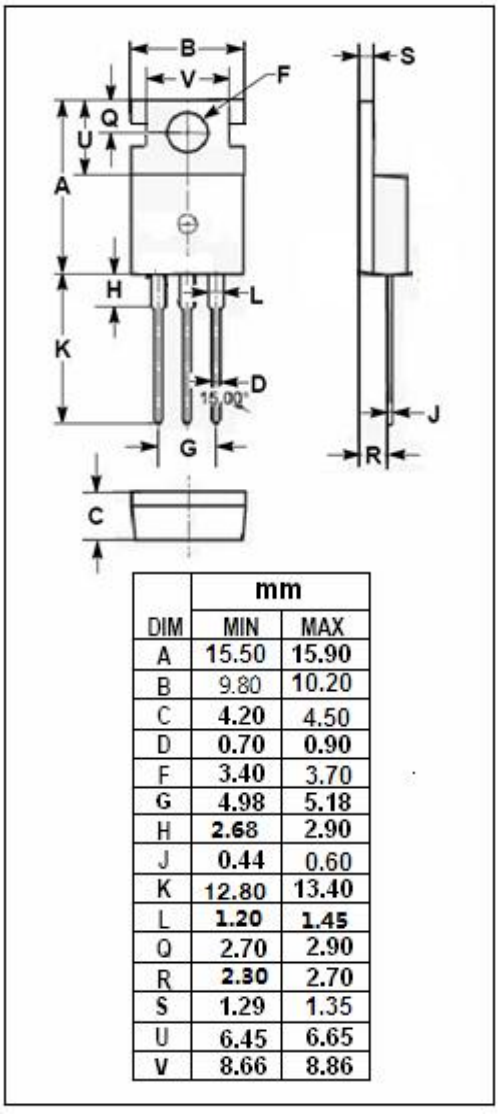
- Designed for use in power linear and switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-160	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
I_{CM}	Collector Current-Peak	-12	A
I_B	Base Current-Continuous	-0.2	A
P_C	Collector Power Dissipation @ T_C=25℃	60	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.08	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	70	℃/W



DIM	mm MIN	mm 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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= -50mA ;I_B= 0	-160			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -2A; I_B= -10mA			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -2A; I_B= -10mA			-2.5	V
V_{ECF}	C-E Diode Forward Voltage	I_F= -2A			-2.5	V
I_{CEO}	Collector Cutoff Current	V_{CE}= -80V; I_B= 0			-0.5	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= -160V; I_E= 0			-0.2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-5	mA
h_{FE-1}	DC Current Gain	I_C= -2A ; V_{CE}= -5V	500			
h_{FE-2}	DC Current Gain	I_C= -3A ; V_{CE}= -5V	150			