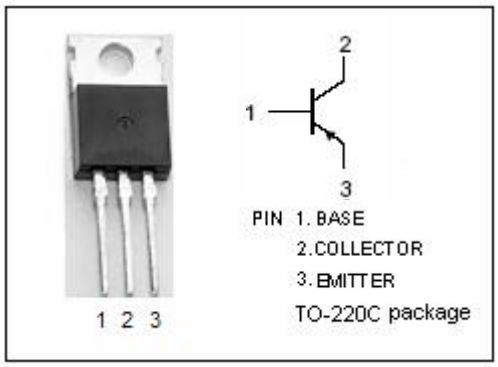
isc Silicon PNP Power Transistor — BD934/936/938/940/942

DESCRIPTION

- DC Current Gain-
  : h_{FE}= 40(Min)@ I_C= -150mA
- Complement to Type BD933/935/937/939/941
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

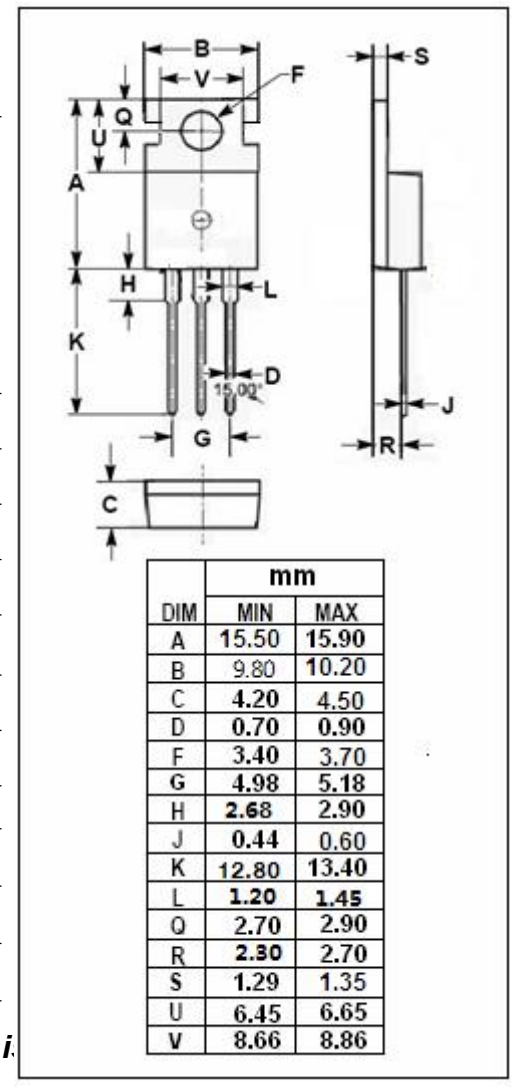
APPLICATIONS

- Designed for use in output stages of audio and television amplifier circuits where high peak powers can occur.



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BD934	-45	V
		BD936	-60	
		BD938	-100	
		BD940	-120	
		BD942	-140	
V_{CEO}	Collector-Emitter Voltage	BD934	-45	V
		BD936	-60	
		BD938	-80	
		BD940	-100	
		BD942	-120	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-3	A
I_{CM}	Collector Current-Peak		-7	A
I_B	Base Current-Continuous		-0.5	A
P_C	Collector Power Dissipation @ T_C=25℃		30	W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		-65~150	℃



DIM	mm 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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	4.17	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient	70	℃/W

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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	BD934	I_C= -30mA ; I_B= 0	-45			V
		BD936		-60			
		BD938		-80			
		BD940		-100			
		BD942		-120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		I_C= -1A; I_B= -0.1A			-0.6	V
$V_{BE(on)}$	Base-Emitter On Voltage		I_C= -1A; V_{CE}= -2V			-1.3	V
I_{CBO}	Collector Cutoff Current		V_{CB}= V_{CBOmax}; I_E= 0 V_{CB}= V_{CBOmax}; I_E= 0,T_J=150℃			-0.05 -1	mA
I_{CEO}	Collector Cutoff Current		V_{CE}= V_{CEOmax}; I_B= 0			-0.1	mA
I_{EBO}	Emitter Cutoff Current		V_{EB}= -5V; I_C= 0			-0.2	mA
h_{FE-1}	DC Current Gain		I_C= -150mA ; V_{CE}= -2V	40		250	
h_{FE-2}	DC Current Gain		I_C= -1A ; V_{CE}= -2V	25			
f_T	Current-Gain—Bandwidth Product		I_C= -250mA ; V_{CE}= -10V	3			MHz
Switching Times							
t_{on}	Turn-On Time		I_C= -1.0A; I_{B1}= -I_{B2}= -0.1A		0.2	0.6	μs
t_{off}	Turn-Off Time				0.7	2.4	μs

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