

isc Silicon PNP Power Transistor

BD950F/952F/954F/956F

DESCRIPTION

- DC Current Gain-
: $h_{FE}=40(\text{Min})@I_C=-500\text{mA}$
- Complement to Type BD949F/951F/953F/955F

APPLICATIONS

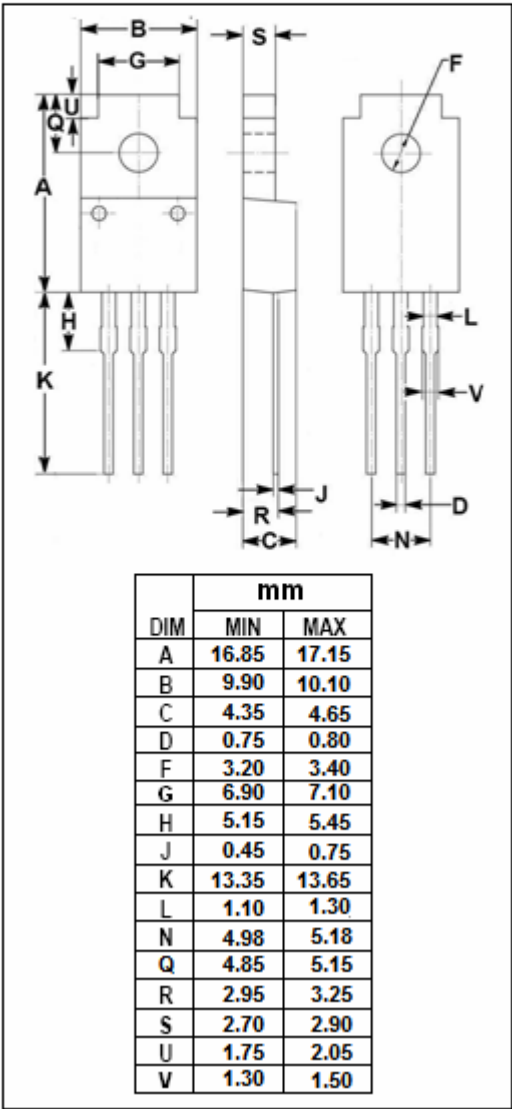
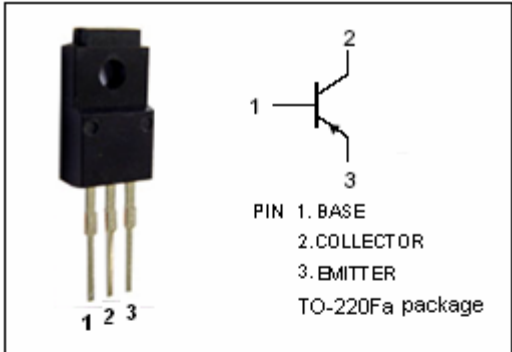
- Designed for power amplifier and switching applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CBO}	Collector-Base Voltage	BD950F	-60	V
		BD952F	-80	
		BD954F	-100	
		BD956F	-120	
V_{CEO}	Collector-Emitter Voltage	BD950F	-60	V
		BD952F	-80	
		BD954F	-100	
		BD956F	-120	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-5	A
I_{CM}	Collector Current-Peak		-8	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$		22	W
T_J	Junction Temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range		-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	8.12	$^{\circ}\text{C/W}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -100\text{mA}$; $I_B = 0$	-60			V
			-80			
			-100			
			-120			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}$; $I_B = -0.2\text{A}$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -2\text{A}$; $V_{CE} = -4\text{V}$			-1.4	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = V_{CB0max}$; $I_E = 0$ $V_{CB} = \frac{1}{2}V_{CB0max}$; $I_E = 0$, $T_J = 150^{\circ}\text{C}$			-0.05 -1	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = \frac{1}{2}V_{CE0max}$; $I_B = 0$			-0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-0.2	mA
h_{FE-1}	DC Current Gain	$I_C = -500\text{mA}$; $V_{CE} = -4\text{V}$	40			
h_{FE-2}	DC Current Gain	$I_C = -2\text{A}$; $V_{CE} = -4\text{V}$		20		
f_T	Current-Gain—Bandwidth Product	$I_C = -500\text{mA}$; $V_{CE} = -4\text{V}$	3			MHz

Switching Times

t_{on}	Turn-On Time	$I_C = -1.0\text{A}$; $I_{B1} = -I_{B2} = -0.1\text{A}$		0.3		μs
t_{off}	Turn-Off Time			1.5		μs