

isc Silicon NPN Power Transistor
BD949F/951F/953F/955F
DESCRIPTION

- DC Current Gain-
: $h_{FE} = 40(\text{Min}) @ I_C = 500\text{mA}$
- Complement to Type BD950F/952F/954F/956F
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

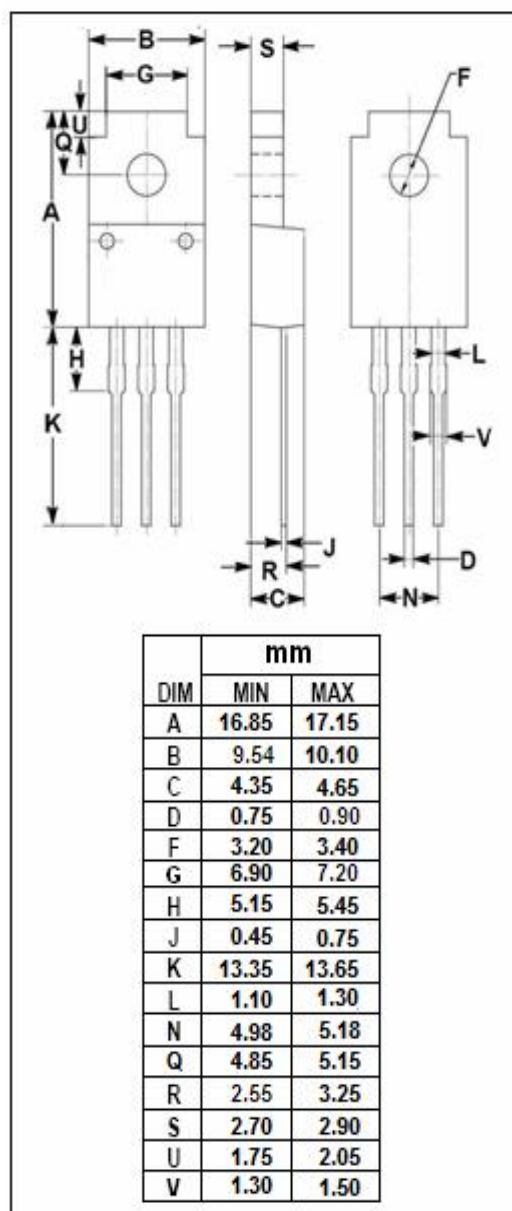
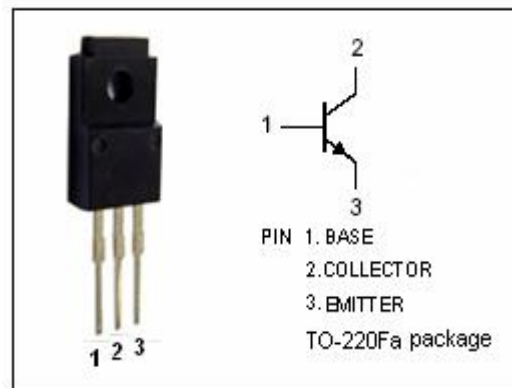
- Designed for power amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CBO}	Collector-Base Voltage	BD949F	60	V
		BD951F	80	
		BD953F	100	
		BD955F	120	
V_{CEO}	Collector-Emitter Voltage	BD949F	60	V
		BD951F	80	
		BD953F	100	
		BD955F	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°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-Emitter Sustaining Voltage	BD949F	60			V
		BD951F	80			
		BD953F	100			
		BD955F	120			
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.2A			1.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 2A; V _{CE} = 4V			1.4	V
I _{CBO}	Collector Cutoff Current	V _{CB} = V _{CB0max} ; I _E = 0 V _{CB} = 1/2V _{CB0max} ; I _E = 0, T _J =150°C			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 = 500mA; V _{CE} = 4V	40			
h _{FE-2}	DC Current Gain	I _C = 2A; V _{CE} = 4V		20		
f _T	Current-Gain—Bandwidth Product	I _C = 500mA; V _{CE} = 4V	3			MHz

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