

isc Silicon PNP Darlington Power Transistor

2SB950A

DESCRIPTION

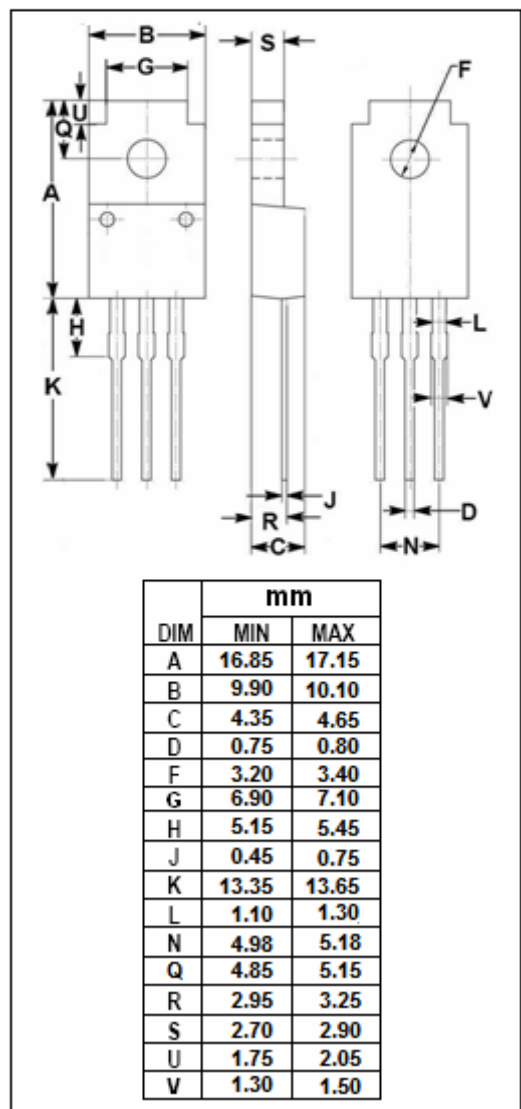
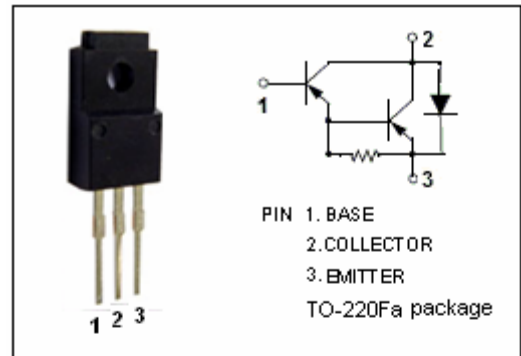
- High DC Current Gain-
: $h_{FE} = 2000(\text{Min.}) @ I_C = -3A$
- High Speed Switching
- Complement to Type 2SD1276A

APPLICATIONS

- Designed for power amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-4	A
I_{CM}	Collector Current-Peak	-8	A
P_C	Collector Power Dissipation @ $T_a=25^\circ C$	2	W
	Collector Power Dissipation @ $T_c=25^\circ C$	40	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -30\text{mA}$; $I_B = 0$	-80			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}$; $I_B = -12\text{mA}$			-2.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -5\text{A}$; $I_B = -20\text{mA}$			-4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -3\text{A}$; $V_{CE} = -3\text{V}$			-2.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -100\text{V}$; $I_E = 0$			-0.2	mA
I_{CEO}	Collector Cutoff Current	$V_{CE} = -40\text{V}$; $I_B = 0$			-0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-2.0	mA
h_{FE-1}	DC Current Gain	$I_C = -0.5\text{A}$; $V_{CE} = -3\text{V}$	1000			
h_{FE-2}	DC Current Gain	$I_C = -3\text{A}$; $V_{CE} = -3\text{V}$	2000		10000	
f_T	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}$; $V_{CE} = -10\text{V}$; $f_{test} = 1\text{MHz}$		20		MHz

Switching times

t_{on}	Turn-on Time	$I_C = -3\text{A}$, $I_{B1} = -I_{B2} = -12\text{mA}$, $V_{CC} = -50\text{V}$		0.3		μs
t_{stg}	Storage Time			2.0		μs
t_f	Fall Time			0.5		μs

◆ h_{FE-2} Classifications

Q	P
2000-5000	4000-10000