

isc Silicon PNP Darlington Power Transistor

2SB1024

DESCRIPTION

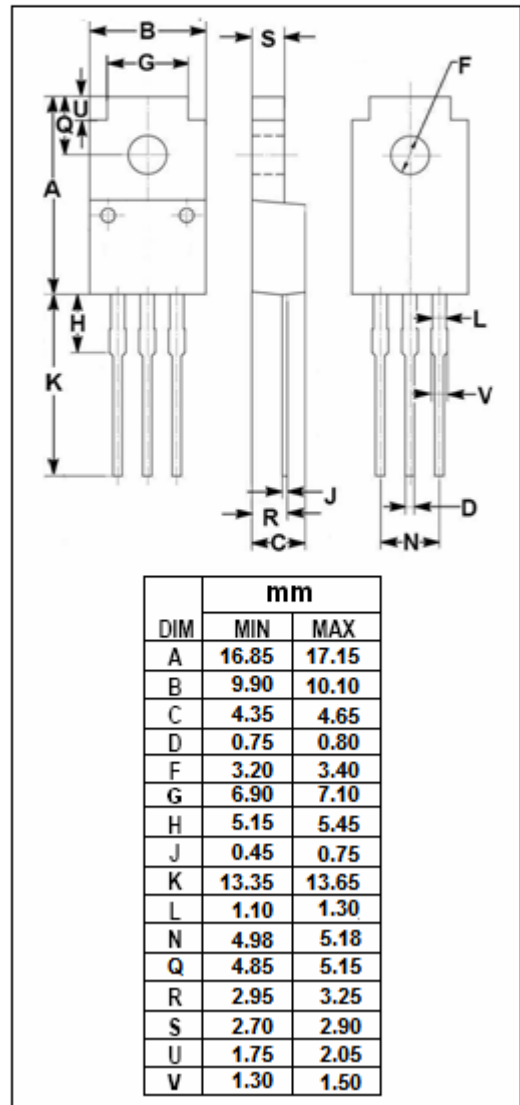
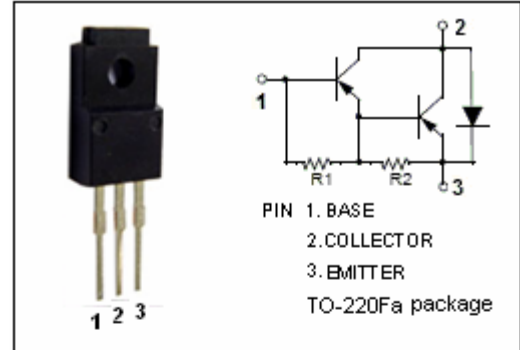
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -1.5V(\text{Max.}) @ I_C = -3A$
- High DC Current Gain-
: $h_{FE} = 2000(\text{Min}) @ (V_{CE} = -2V, I_C = -1A)$
- Complement to Type 2SD1414

APPLICATIONS

- Designed for power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	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	-6	A
I_B	Base Current-Continuous	-0.3	A
P_C	Collector Power Dissipation @ $T_a=25^\circ C$	2	W
	Collector Power Dissipation @ $T_C=25^\circ C$	20	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -10mA ; I _B = 0	-80			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -3A; I _B = -6mA			-1.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -3A; I _B = -6mA			-2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -100V; I _E = 0			-20	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-2.5	mA
h _{FE-1}	DC Current Gain	I _C = -1A; V _{CE} = -2V	2000			
h _{FE-2}	DC Current Gain	I _C = -3A; V _{CE} = -2V	1000			

Switching Times

t _{on}	Turn-on Time	V _{CC} ≈ -30V, R _L = 10 Ω, I _C = -3A; I _{B1} = -I _{B2} = -6mA,		0.15		μ s
t _{stg}	Storage Time			0.80		μ s
t _f	Fall Time			0.40		μ s