

Silicon PNP Power Transistor

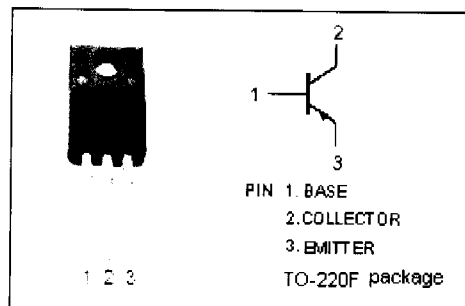
2SA1469

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 70(\text{Min}) @ (V_{CE} = -2V, I_C = -1A)$
- Low Saturation Voltage-
: $V_{CE(\text{sat})} = -0.4V(\text{Max}) @ (I_C = -2.5A, I_B = -0.125A)$
- Fast Switching Time
- Complement to Type 2SC3746

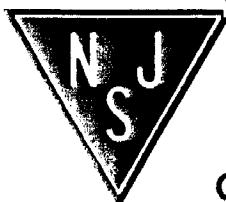
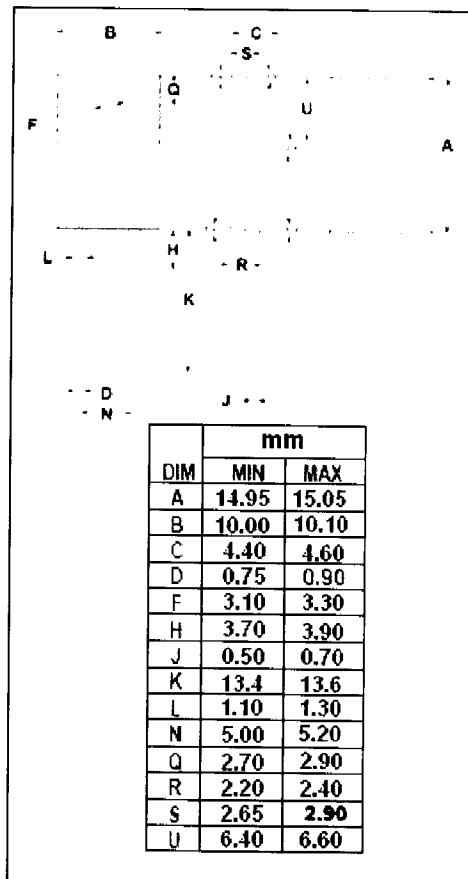
APPLICATIONS

- Various inductance lamp drivers for electrical equipment
- Inverters, converters (strobo, flash, fluorescent lamp lighting circuit).
- Power amp (high power car stereo, motor controller).
- High-speed switching (switching regulator, driver).



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-5	A
I_{CM}	Collector Current-Peak	-7	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	20	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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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; R _{BE} = ∞	-60			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -1mA; I _E = 0	-80			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -1mA; I _C = 0	-5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -2.5A; I _B = -0.125A			-0.4	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -40V; I _E = 0			-100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4V; I _C = 0			-100	μ A
h _{FE}	DC Current Gain	I _C = -1A; V _{CE} = -2V	70		280	
f _T	Current-Gain—Bandwidth Product	I _C = -1A; V _{CE} = -5V		100		MHz

Switching Times

t _{on}	Turn-on Time	I _C = -2A, R _L = 10Ω , I _{B1} = -I _{B2} = -0.1A, V _{CC} = 20V		0.1		μ s
t _{stg}	Storage Time			0.5		μ s
t _f	Fall Time			0.1		μ s

◆ h_{FE} Classifications

Q	R	S
70-140	100-200	140-280