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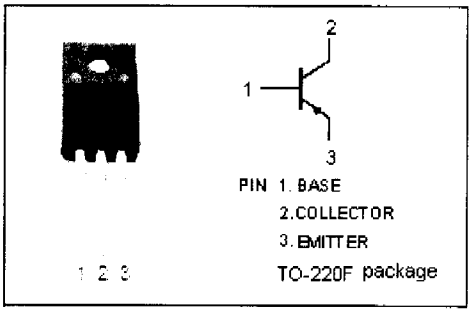
Silicon PNP Power Transistor

2SA1470

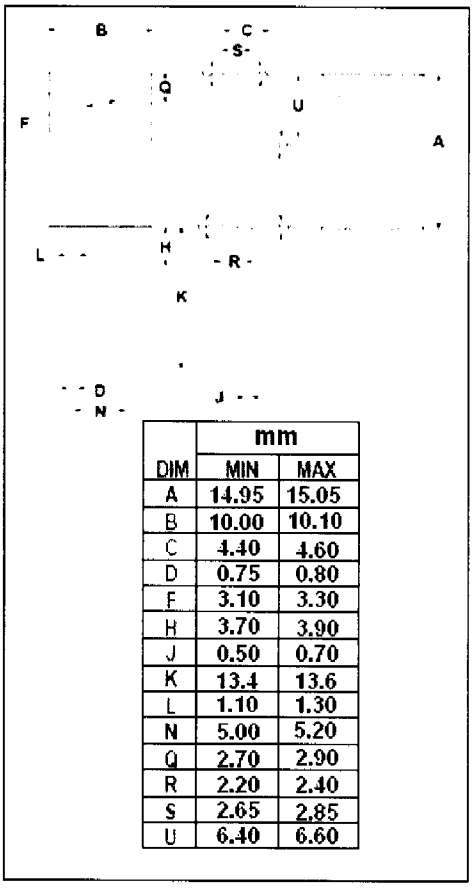
DESCRIPTION

- DC Current Gain-
  : h_{FE}= 70(Min)@ (V_{CE}= -2V, I_C= -1A)
- Low Saturation Voltage-
  : $V_{CE(sat)}$= −0.4V(Max)@ (I_C= -3.5A, I_B= -0.175A)
- Fast Switching Time
- Complement to Type 2SC3747



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).



DIM	mm MIN	mm MAX
A	14.95	15.05
B	10.00	10.10
C	4.40	4.60
D	0.75	0.80
F	3.10	3.30
H	3.70	3.90
J	0.50	0.70
K	13.4	13.6
L	1.10	1.30
N	5.00	5.20
Q	2.70	2.90
R	2.20	2.40
S	2.65	2.85
U	6.40	6.60

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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	-7	A
I_{CM}	Collector Current-Peak	-10	A
P_C	Collector Power Dissipation @T_a=25℃	2	W
	Collector Power Dissipation @T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -1mA; 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= -3.5A; I_B= -0.175A			-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= -3A, R_L= 6.67Ω , I_{B1}= -I_{B2}= -0.15A, 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