

Silicon PNP Power Transistor

2SB1508

DESCRIPTION

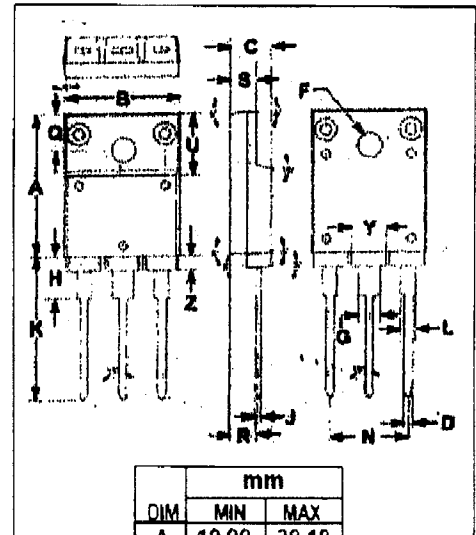
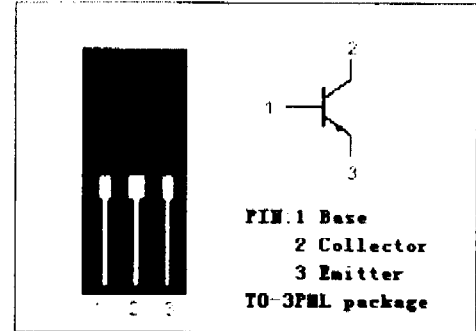
- Low Collector Saturation Voltage
 $V_{CE(sat)} = -0.5(V)(Max) @ I_C = -6A$
- Good Linearity of h_{FE}
- Wide Area of Safe Operation
- Complement to Type 2SD2281

APPLICATIONS

- Designed for relay drivers, high-speed inverters, converters.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CB0}	Collector-Base Voltage	-60	V
V_{CE0}	Collector-Emitter Voltage	-50	V
V_{EB0}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-12	A
I_{CM}	Collector Current-Peak	-25	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ C$	3	W
	Collector Power Dissipation @ $T_C = 25^\circ C$	45	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10



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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	$I_C = -1\text{mA}$, $R_{\theta E} = \infty$	-50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -1\text{mA}$, $I_E = 0$	-60			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}$, $I_C = 0$	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -6\text{A}$, $I_B = -0.3\text{A}$			-0.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40\text{V}$, $I_E = 0$			-100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}$, $I_C = 0$			-100	μA
h_{FE-1}	DC Current Gain	$I_C = -1\text{A}$, $V_{CE} = -2\text{V}$	70		280	
h_{FE-2}	DC Current Gain	$I_C = -5\text{A}$, $V_{CE} = -2\text{V}$	30			
f_T	Current-Gain—Bandwidth Product	$I_C = -1\text{A}$, $V_{CE} = -5\text{V}$		10		MHz

Switching Times

t_{on}	Turn-on Time	$I_C = -5\text{A}$, $R_c = 4\Omega$, $I_B = -I_{B2} = -0.5\text{A}$, $V_{CC} = 20\text{V}$		0.2		μs
t_{stg}	Storage Time			0.4		μs
t_r	Fall Time			0.1		μs

◆ h_{FE-1} Classifications

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