

isc Silicon PNP Power Transistor

2SB508

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -60V(\text{Min})$
- Low Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = -1.0V(\text{Max}) @ I_C = -2.0A$
- Complement to Type 2SD314
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

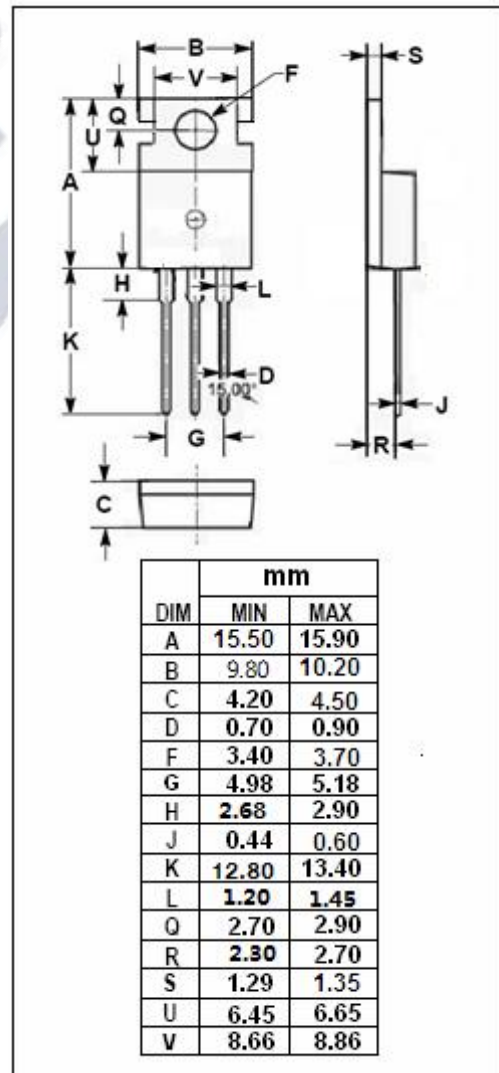
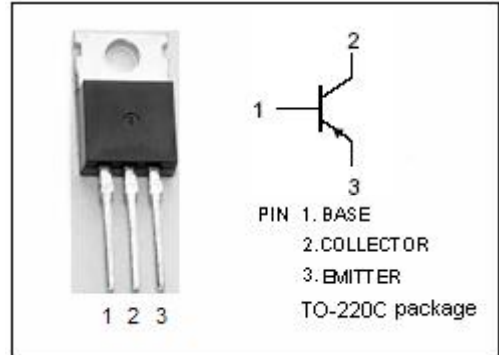
- Designed for the output stage of 15W to 25W AF power amplifier.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current-Continuous	-3.0	A
I_{CM}	Collector Current-Peak	-6.0	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	30	W
T_J	Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.16	$^\circ\text{C}/\text{W}$



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ELECTRICAL CHARACTERISTICS

 T_c=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	-60			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -2A; I _B = -0.2A			-1.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -1A; V _{CE} = -2V			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -20V; I _E = 0			-100	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = -60V; I _B = 0			-5	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4V ; I _C = 0			-1	mA
h _{FE-1*}	DC Current Gain	I _C = -1A; V _{CE} = -2V	40		320	
h _{FE-2}	DC Current Gain	I _C = -0.1A ; V _{CE} = -2V	40			
f _T	Current-Gain—Bandwidth Product	I _C = -0.5A; V _{CE} = -5V; f _{test} = 1.0MHz		8		MHz
C _{OB}	Output Capacitance	I _E =0; V _{CB} = -10V; f= 1.0MHz		130		pF

★Pulse Test :Pulse Width=300us,Cuty cycle≤2.0%

◆ h_{FE-1} Classifications

C	D	E	F
40-80	60-120	100-200	160-320