

SPTECH Silicon PNP Power Transistor

2SA1011

DESCRIPTION

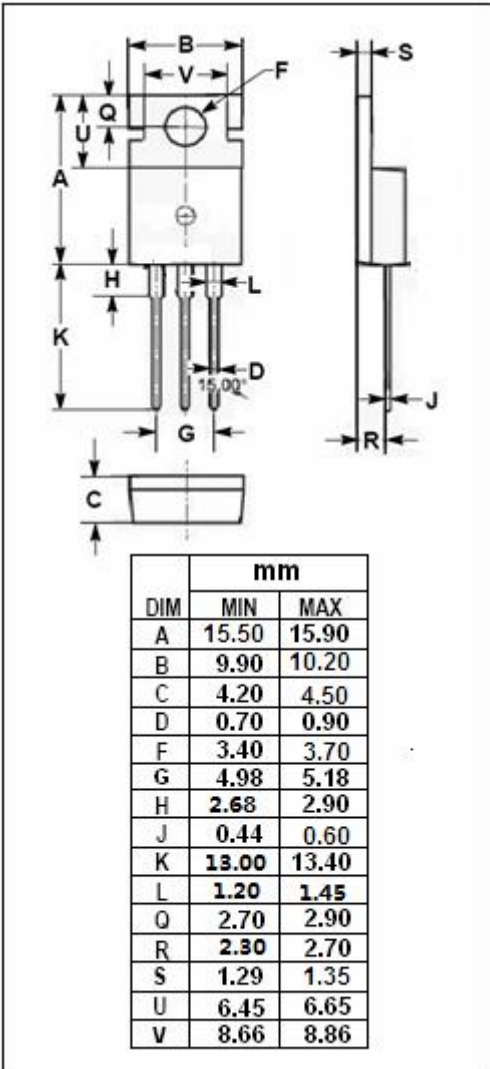
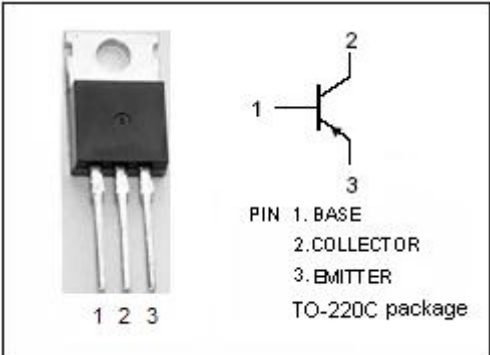
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -0.5V(Typ.) @ I_C = -0.5A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -160V(Min.)$
- Complement to Type 2SC2344

APPLICATIONS

- Designed for high-voltage switching, audio frequency power amplifiers, 100W output predriver applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-180	V
V_{CEO}	Collector-Emitter Voltage	-160	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-1.5	A
I_{CM}	Collector Current-Peak	-3.0	A
P_C	Total Power Dissipation@ $T_C=25^\circ C$	25	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



SPTECH Silicon PNP Power Transistor**2SA1011****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 = -1mA; R _{BE} = ∞	-160			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -1mA; I _E = 0	-180			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -10mA; I _C = 0	-6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -0.5A; I _B = -50mA		-0.5		V
V _{BE(on)}	Base-Emitter On Voltage	I _C = -10mA; V _{CE} = -5V		-1.5		V
I _{CBO}	Collector Cutoff Current	V _{CB} = -120V; I _E = 0			-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -4V; I _C = 0			-10	μ A
h _{FE}	DC Current Gain	I _C = -0.3A; V _{CE} = -5V	60		200	
f _T	Current-Gain—Bandwidth Product	I _C = -50mA ; V _{CE} = -10V		100		MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = -10V; f _{test} = 1.0MHz		30		pF

Switching Times

t _{on}	Turn-On Time	I _C = -0.5A, I _{B1} = -I _{B2} = -50mA		0.29		μ s
t _{stg}	Storage Time			0.48		μ s
t _f	Fall Time			0.19		μ s

◆ h_{FE} Classifications

D	E
60-120	100-200