

SPTECH Silicon PNP Power Transistor

2SA1746

DESCRIPTION

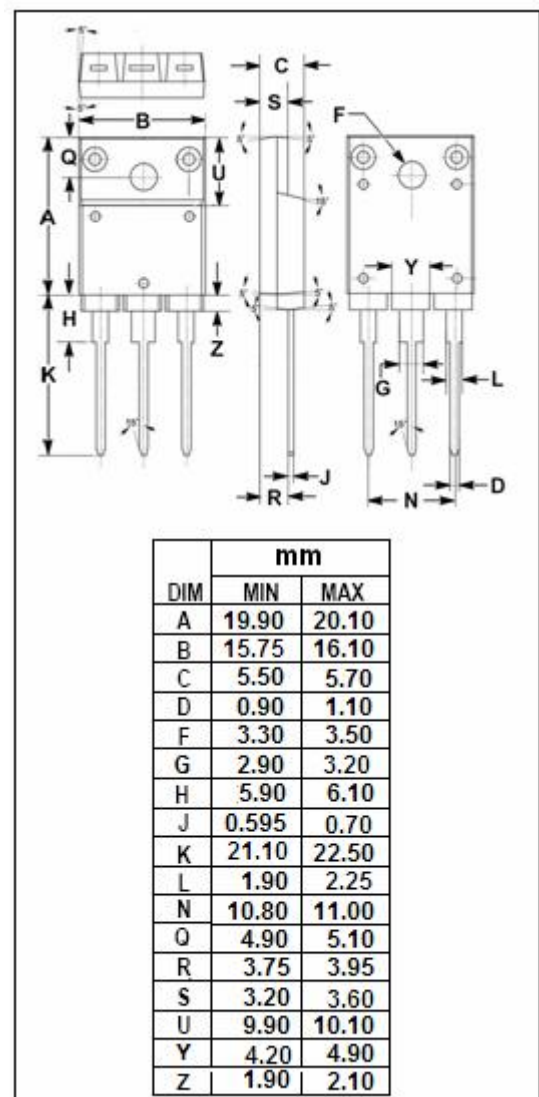
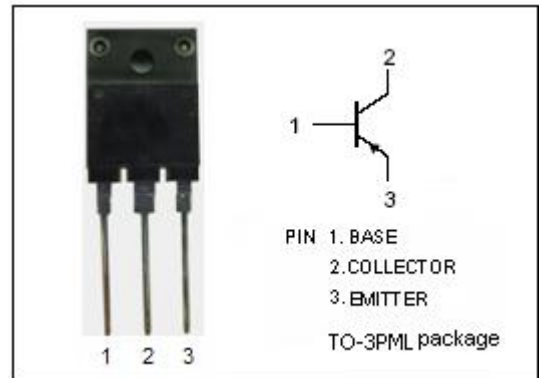
- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.5(V)(Max) @ I_C = -5A$
- Good Linearity of h_{FE}

APPLICATIONS

- Designed for chopper regulator, switch and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-70	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-12	A
I_{CM}	Collector Current-Peak	-20	A
I_B	Base Current-Continuous	-4	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ C$	60	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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 = -25mA ; I _B = 0	-50			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -5A; I _B = -80mA			-0.5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -5A; I _B = -80mA			-1.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -70V ; I _E = 0			-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -6V; I _C = 0			-10	μ A
h _{FE}	DC Current Gain	I _C = -5A ; V _{CE} = -1V	50			
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = -10V;f= 1.0MHz		400		pF
f _T	Current-Gain—Bandwidth Product	I _E = 1A ; V _{CE} = -12V		25		MHz

Switching Times

t _{on}	Turn-on Time	I _C = -5A , R _L = 4 Ω , I _{B1} = -I _{B2} = -80mA, V _{CC} = -20V		0.5		μ s
t _{stg}	Storage Time			0.6		μ s
t _f	Fall Time			0.3		μ s