

SPTECH Silicon PNP Power Transistor

2SA1758

DESCRIPTION

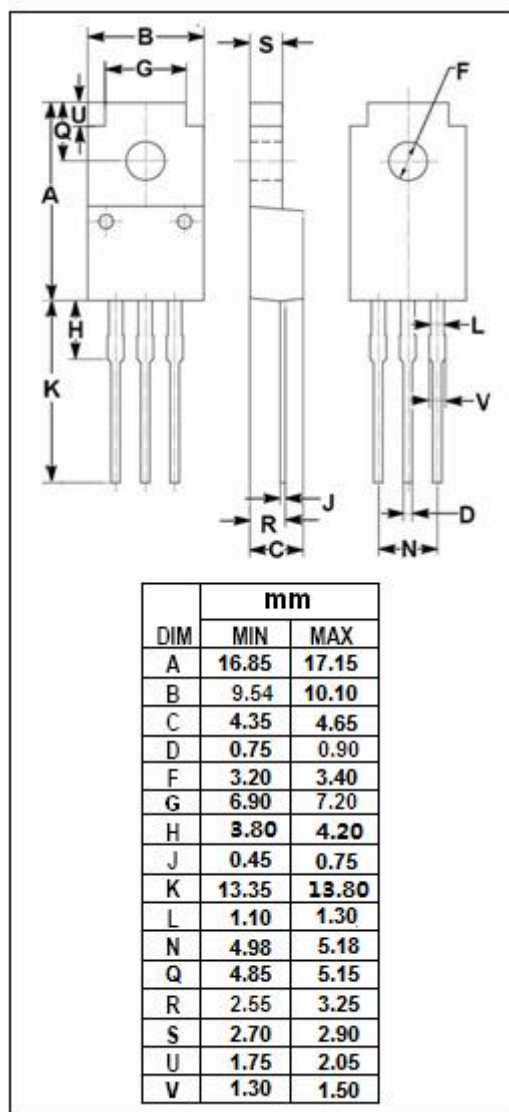
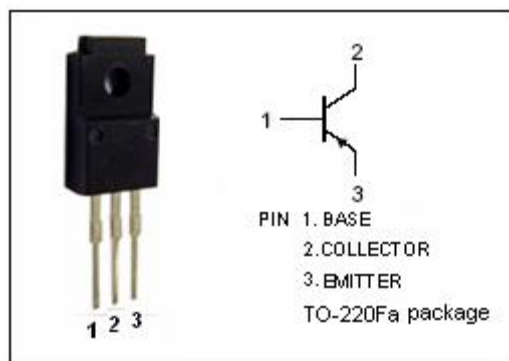
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -60V(\text{Min})$
- DC Current Gain-
: $h_{FE} = 60(\text{Min})@ (V_{CE} = -2V, I_C = -2A)$
- Low Saturation Voltage-
: $V_{CE(sat)} = -0.3V(\text{Max})@ (I_C = -6A, I_B = -0.3A)$

APPLICATIONS

- Designed for power switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-12	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	30	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -1mA ; I _B = 0	-60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -50 μ A ; I _C = 0	-5			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = -6A; I _B = -0.3A			-0.3	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = -8A; I _B = -0.4A			-0.5	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = -6A; I _B = -0.3A			-1.2	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = -8A; I _B = -0.4A			-1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -100V ; I _E =0			-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C =0			-10	μ A
h _{FE-1}	DC Current Gain	I _C = -1A ; V _{CE} = -2V	100			
h _{FE-2}	DC Current Gain	I _C = -2A ; V _{CE} = -2V	60		320	
f _T	Current-Gain—Bandwidth Product	I _C = -1A ; V _{CE} = -10V		90		MHz

◆ h_{FE-2} Classifications

D	E	F
60-120	100-200	160-320