

## isc Silicon PNP Power Transistor

## 2SA1758

## DESCRIPTION

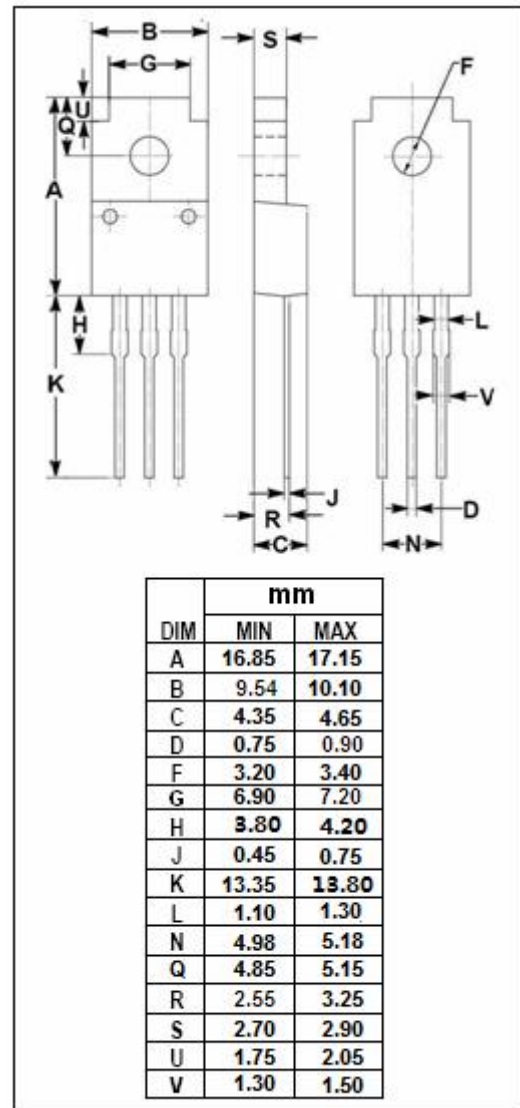
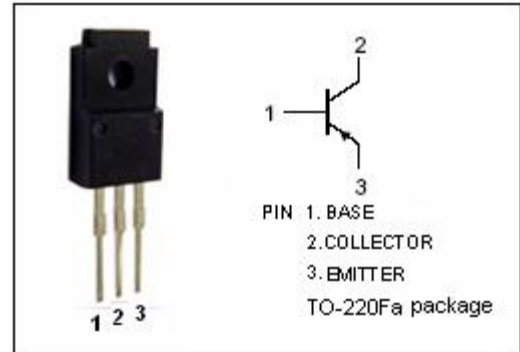
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -60V(\text{Min})$
- DC Current Gain-  
:  $h_{FE} = 60(\text{Min})@ (V_{CE} = -2V, I_C = -2A)$
- Low Saturation Voltage-  
:  $V_{CE(sat)} = -0.3V(\text{Max})@ (I_C = -6A, I_B = -0.3A)$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## 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	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SA1758****ELECTRICAL CHARACTERISTICS****T<sub>j</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -1mA ; I <sub>B</sub> = 0	-60			V
V <sub>CE(sat)</sub> -1	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -6A; I <sub>B</sub> = -0.3A			-0.3	V
V <sub>CE(sat)</sub> -2	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -8A; I <sub>B</sub> = -0.4A			-0.5	V
V <sub>BE(sat)</sub> -1	Base-Emitter Saturation Voltage	I <sub>C</sub> = -6A; I <sub>B</sub> = -0.3A			-1.2	V
V <sub>BE(sat)</sub> -2	Base-Emitter Saturation Voltage	I <sub>C</sub> = -8A; I <sub>B</sub> = -0.4A			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -100V ; I <sub>E</sub> =0			-10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> =0			-10	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -1A ; V <sub>CE</sub> = -2V	100			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -2V	60		320	

**◆ h<sub>FE-2</sub> Classifications**

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

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