

**isc Silicon PNP Power Transistor**
**2SA2140**
**DESCRIPTION**

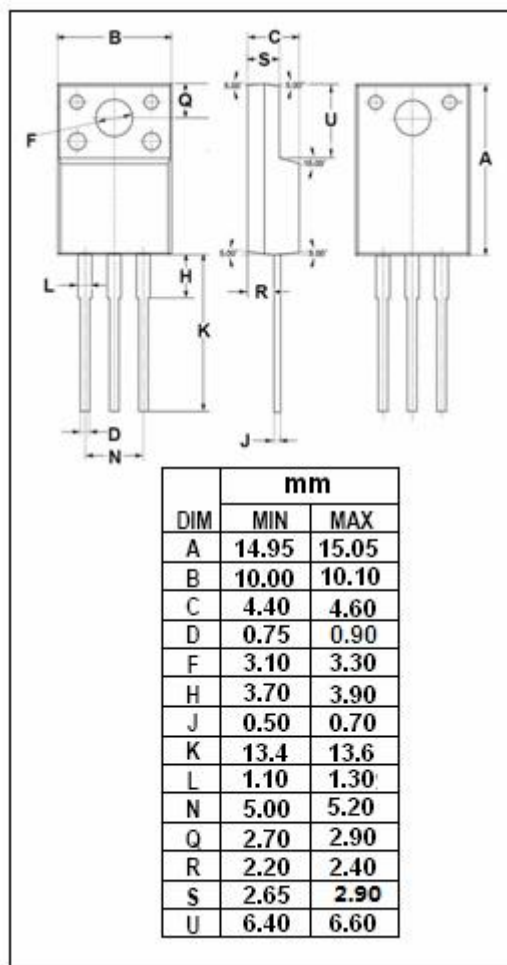
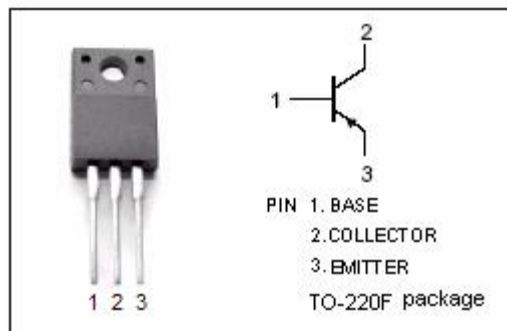
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -180V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for power amplification and for TV VM circuit.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-180	V
$V_{CEO}$	Collector-Emitter Voltage	-180	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-1.5	A
$I_{CP}$	Collector Current-Peak	-3	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	20	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$



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## 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> = -10mA ; I <sub>B</sub> = 0	-180			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -1A; I <sub>B</sub> = -0.1A			-0.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -180V ; I <sub>E</sub> = 0			-100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-100	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -0.1A ; V <sub>CE</sub> = -5V	60		240	
C <sub>OB</sub>	Collector Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f= 1MHz		30		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -0.2A; V <sub>CE</sub> = -10V; f= 10MHz		100		MHz

◆ h<sub>FE</sub> Classifications

Q	P
60-140	120-240

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