

**isc Silicon PNP Power Transistor**

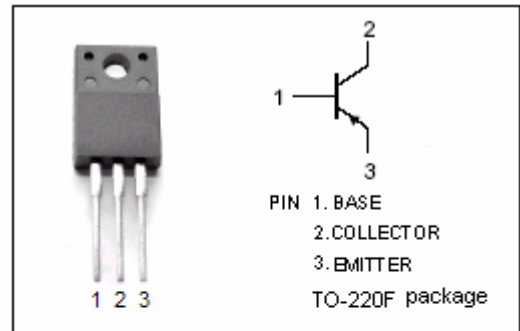
**2SA1659**

**DESCRIPTION**

- High Collector-Emitter Breakdown Voltage  
 $V_{CEO} = -160V(\text{Min})$
- Complement to Type 2SC4370
- Full-mold package that does not require an insulating board or bushing when mounting.

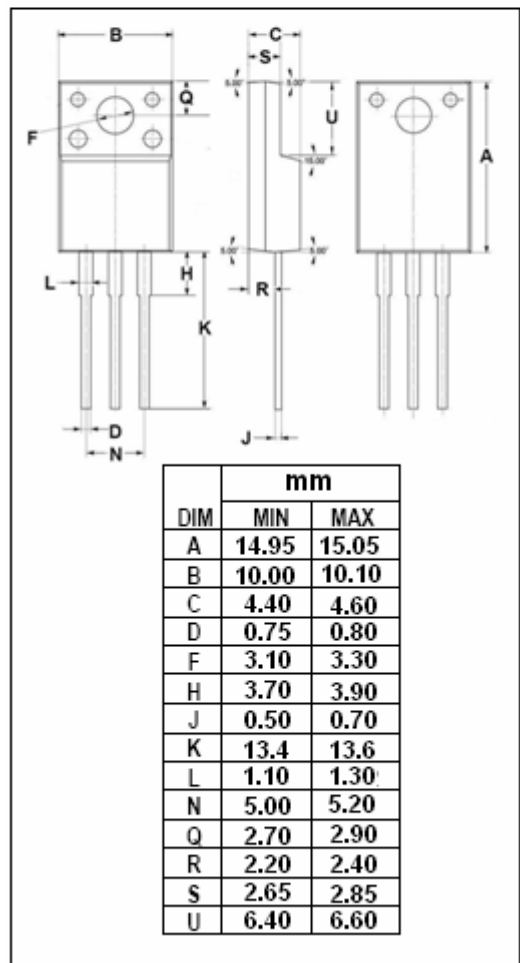
**APPLICATIONS**

- Designed for high voltage applications



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-160	V
$V_{EBO}$	Emitter-Base Voltage	-5.0	V
$I_{C(DC)}$	Collector Current(DC)	-1.5	A
$I_{B(DC)}$	Base Current	-0.15	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	20	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SA1659****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	-160			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -500mA; I <sub>B</sub> = -50mA			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -160V ; I <sub>E</sub> =0			-1.0	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> =0			-1.0	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -100mA ; V <sub>CE</sub> = -5V	70		240	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> = -10V;f= 1.0MHz		30		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> =-100m A ; V <sub>CE</sub> = -10V		100		MHz

◆ **h<sub>FE</sub> Classifications**

O	Y
70-140	120-240

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