

**isc Silicon NPN Power Transistor**
**2SD1070**
**DESCRIPTION**

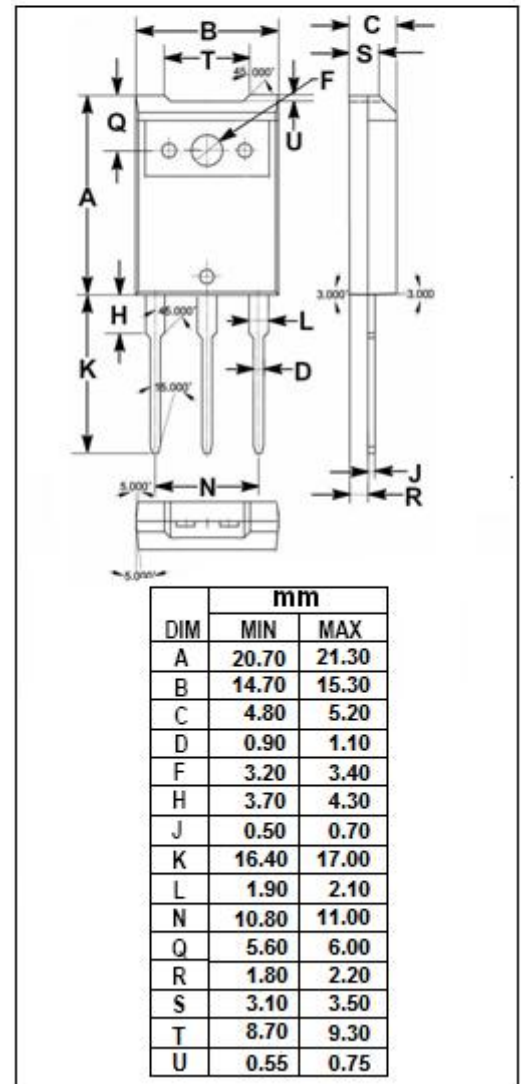
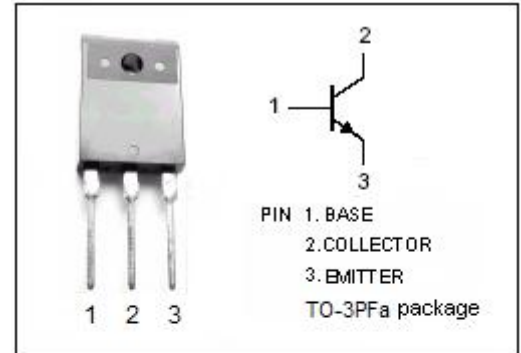
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 100V(\text{Min.})$
- Good Linearity of  $h_{FE}$
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for high power amplifier 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	100	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	10	A
$I_{CP}$	Collector Current-Pulse	15	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	60	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	3	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon NPN Power Transistor****2SD1070****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 5A; I_B= 0.5A$			1.5	V
$V_{BE(on)}$	Base -Emitter On Voltage	$I_C= 5A; V_{CE}= 5V$			1.8	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 100V; I_E= 0$			50	$\mu A$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5V; I_C= 0$			10	$\mu A$
$h_{FE-1}$	DC Current Gain	$I_C= 20mA; V_{CE}= 5V$	20			
$h_{FE-2}$	DC Current Gain	$I_C= 3A; V_{CE}= 1V$	40		200	
$h_{FE-3}$	DC Current Gain	$I_C= 5A; V_{CE}= 5V$	20			
$C_{OB}$	Collector Output Capacitance	$I_E= 0; V_{CB}= 10V; f= 1MHz$		90		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C= 0.5A; V_{CE}= 10V$		20		MHz

**NOTICE:**

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