

isc Silicon NPN Power Transistor
2SD669A
DESCRIPTION

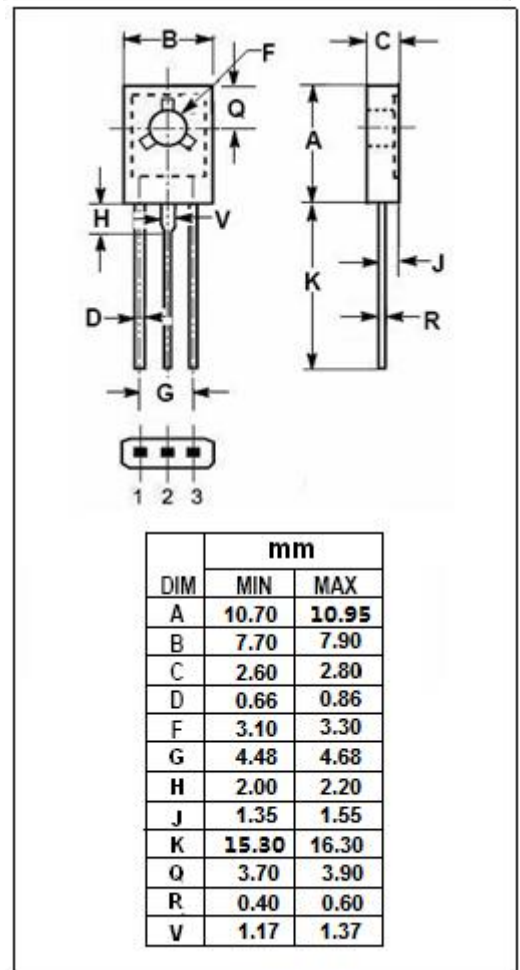
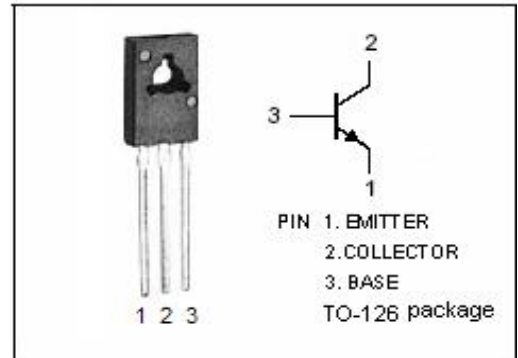
- High Collector Current- $I_C= 1.5A$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO}= 120V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Complement to Type 2SD649
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications

ABSOLUTE MAXIMUM RATINGS(TC=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_{CP}	Collector Current-Pulse	3	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	20	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	1	
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA ; I _E = 0	180			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA ; R _{BE} = ∞	160			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C =0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 500mA ; I _B = 50mA			1.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 150mA ; V _{CE} = 5V			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 160V ; I _E = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 150mA ; V _{CE} = 5V	60		200	
h _{FE-2}	DC Current Gain	I _C = 500mA ; V _{CE} = 5V	30			
f _T	Current-Gain—Bandwidth Product	I _C = 150mA ; V _{CE} = 5V		140		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V, f _{test} = 1MHz		27		pF

◆ h_{FE-1} Classifications

B	C
60-120	100-200

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