

isc Silicon NPN Power Transistor

2SD669

DESCRIPTION

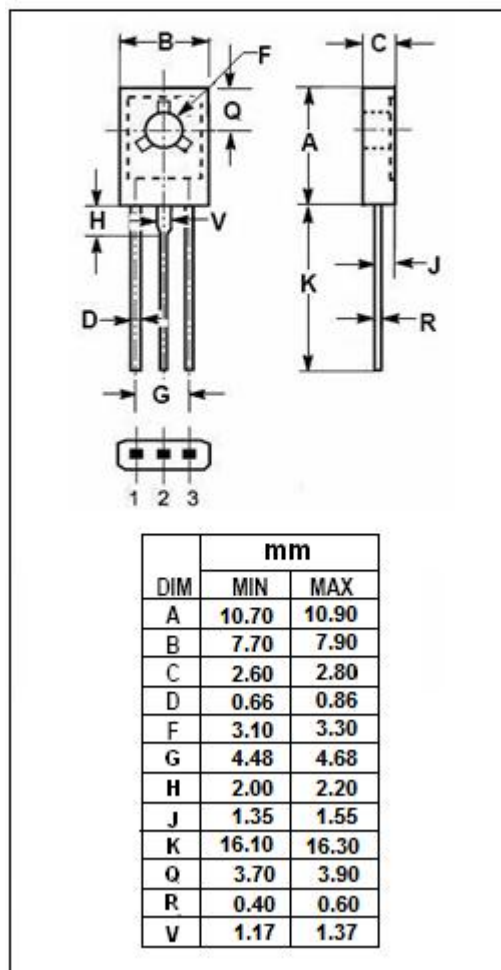
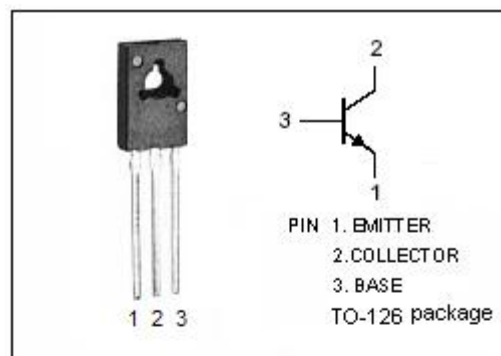
- High Collector Current- $I_C = 1.5A$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 120V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Complement to Type 2SB649
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	120	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 @ $T_C = 25^\circ C$	20	W
	Collector Power Dissipation @ $T_a = 25^\circ C$	1	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistor**2SD669****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=1\text{mA}; I_E=0$	180			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; R_{BE}=\infty$	120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=500\text{mA}; I_B=50\text{mA}$			1.0	V
$V_{BE(on)}$	Base-Emitter Saturation Voltage	$I_C=150\text{mA}; V_{CE}=5\text{V}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=160\text{V}; I_E=0$			10	μA
h_{FE-1}	DC Current Gain	$I_C=150\text{mA}; V_{CE}=5\text{V}$	60		320	
h_{FE-2}	DC Current Gain	$I_C=500\text{mA}; V_{CE}=5\text{V}$	30			
f_T	Current-Gain—Bandwidth Product	$I_C=150\text{mA}; V_{CE}=5\text{V}$		140		MHz
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}, f_{test}=1\text{MHz}$		14		pF

◆ h_{FE-1} Classifications

B	C	D
60-120	100-200	160-320

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