

isc Silicon NPN Power Transistor
2SD1666
DESCRIPTION

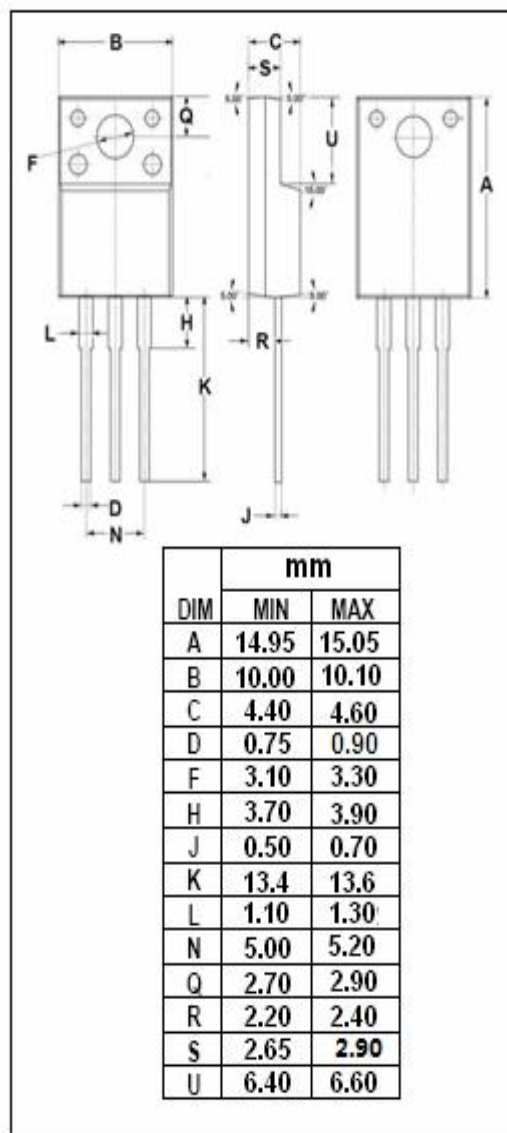
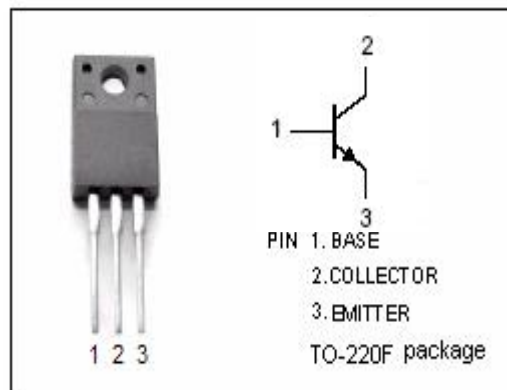
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- Good Linearity of h_{FE}
- Wide Area of Safe Operation
- Complement to Type 2SB1133
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency and general purpose amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	25	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-40~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 5mA ; R _{BE} = ∞	60			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA ; I _E = 0	60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A ; I _B = 0.2A			1.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 0.5A ; V _{CE} = 5V			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 40V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V ; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.5A ; V _{CE} = 5V	70		280	
h _{FE-2}	DC Current Gain	I _C = 3A ; V _{CE} = 5V	20			
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V, f= 1MHz		60		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 5V		8		MHz

◆ h_{FE-1} Classifications

Q	R	S
70-140	100-200	140-280

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