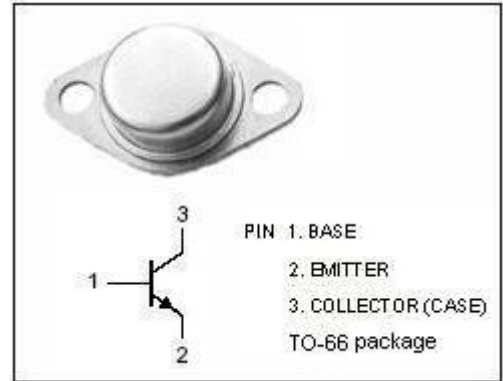


isc Silicon NPN Power Transistor
2SC2239
DESCRIPTION

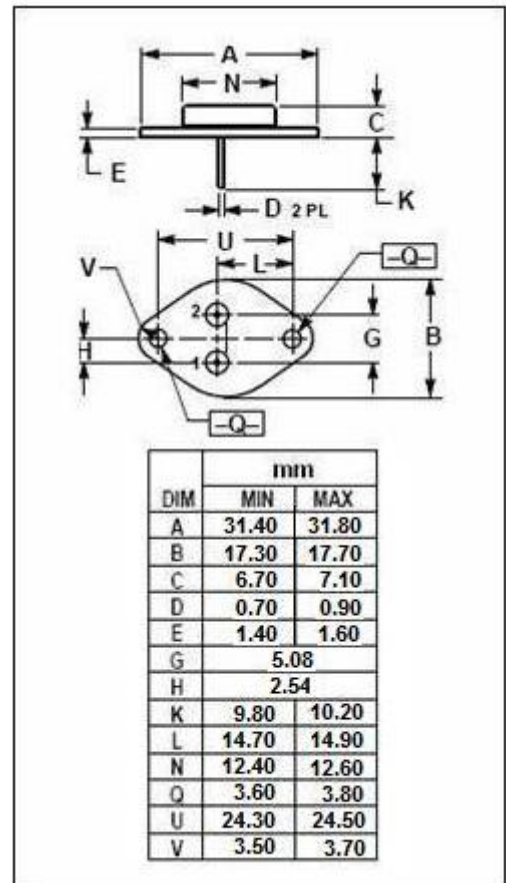
- Collector-Emitter Breakdown Voltage
: $V_{(BR)CEO}=160V(\text{Min})$
- Good Linearity of h_{FE}
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier 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	V
I_C	Collector Current-Continuous	1.5	A
I_E	Emitter Current- Continuous	1.5	A
P_C	Total Power Dissipation @ $T_c=25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C =10mA ; I _B = 0	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 = 0.5A ; I _B = 50mA			1.5	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} = 160V ; I _E = 0			1.0	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} =5V ; I _C = 0			1.0	μ A
h _{FE}	DC Current Gain	I _C =0.1A ; V _{CE} =5V	70		240	
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} =10V ; f _{test} = 1MHz		25		pF
f _T	Current-Gain—Bandwidth Product	I _C =0.1A ; V _{CE} =10V		100		MHz

◆ h_{FE} Classifications

O	Y
70-140	120-240

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