

isc Silicon NPN Power Transistor

2SC2816

DESCRIPTION

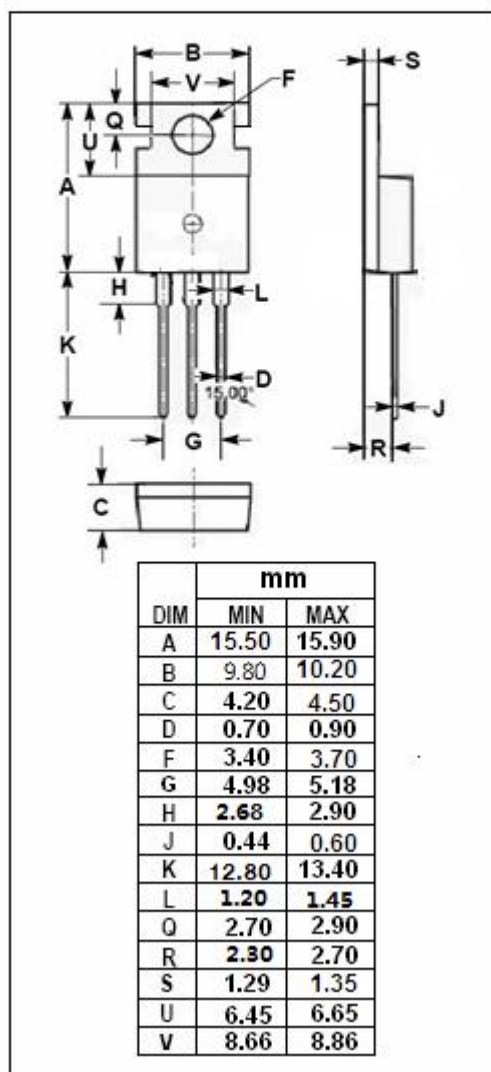
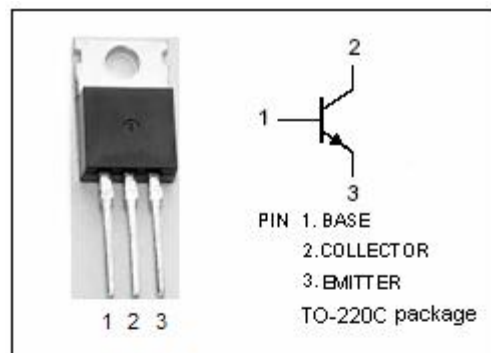
- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V(\text{Min})$
- High Switching Speed
- High Reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high voltage, high speed and high power applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	2.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	40	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 _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA; I _B =0	400			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10mA ; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.5A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2.5A; I _B = 0.5A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 400V; I _E =0			50	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 350V; R _{BE} = ∞			50	μ A
h _{FE-1}	DC Current Gain	I _C = 2.5A; V _{CE} = 5V	15			
h _{FE-2}	DC Current Gain	I _C = 5A; V _{CE} = 5V	7			
Switching times						
t _{on}	Turn-on Time	I _C = 5A, I _{B1} = -I _{B2} = 1A; V _{CC} ≈150V			0.5	μ s
t _{stg}	Storage Time				1.5	μ s
t _f	Fall Time				0.5	μ s

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