

isc Silicon NPN Power Transistor

2SC2440

DESCRIPTION

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

APPLICATIONS

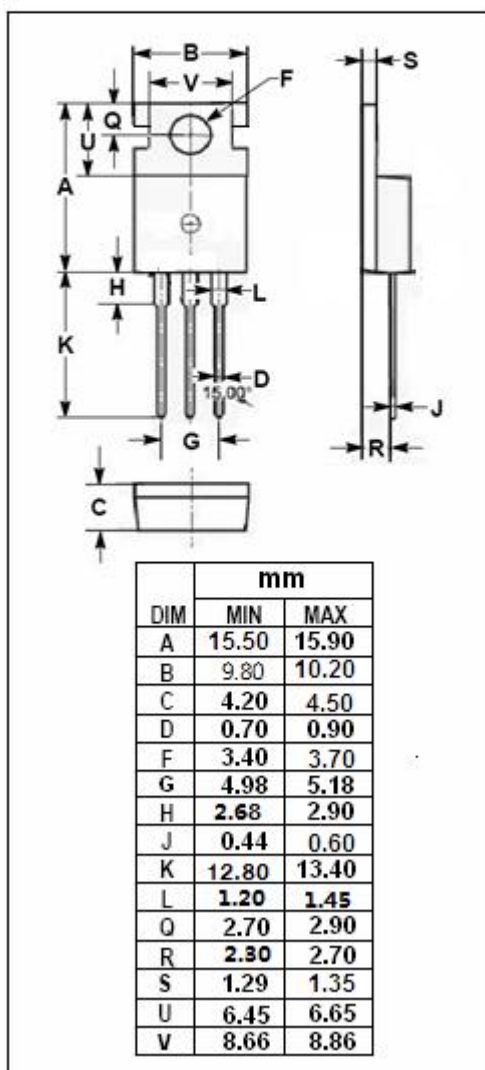
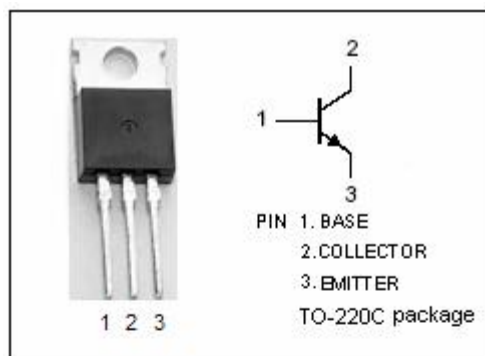
- Switching regulators
- Ultrasonic generators
- High frequency inverters
- General purpose power amplifiers

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	450	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	5	A
I _B	Base Collector Current-Continuous	1.5	A
P _C	Total Power Dissipation @ T _C =25°C	40	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-45~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	3.0	°C/W



isc Silicon NPN Power Transistor**2SC2440****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	400			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 0.1mA; I _E = 0	450			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 0.1mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A			0.8	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 400V; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			100	μ A
h _{FE}	DC Current Gain	I _C = 2A; V _{CE} = 5V	15			

Switching Times

t _{on}	Turn-On Time	I _C = 3A; I _{B1} = -I _{B2} = 0.3A; R _L = 20 Ω			1.5	μ s
t _{stg}	Storage Time				4.0	μ s
t _f	Fall Time				1.3	μ s

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