

isc Silicon NPN Power Transistor
2SC2552
DESCRIPTION

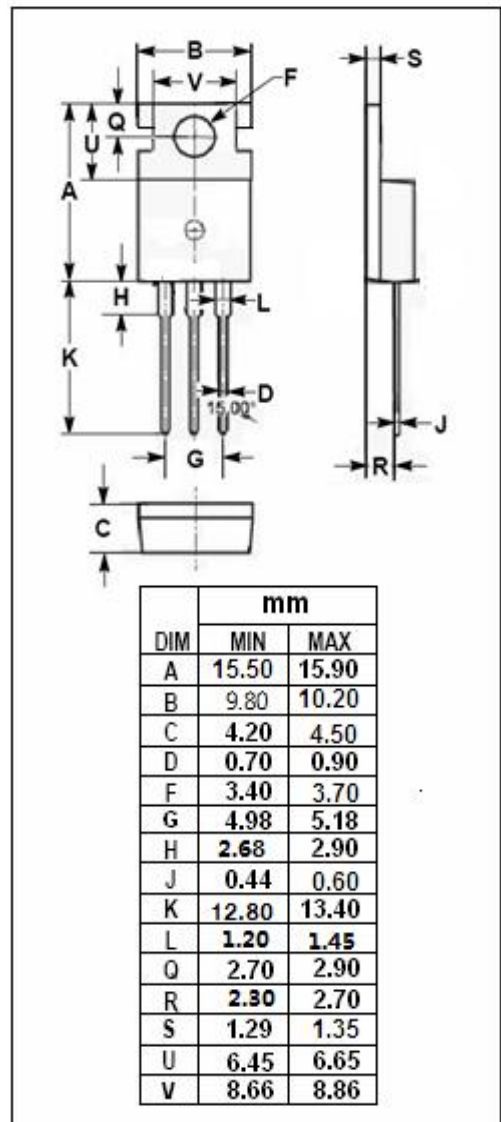
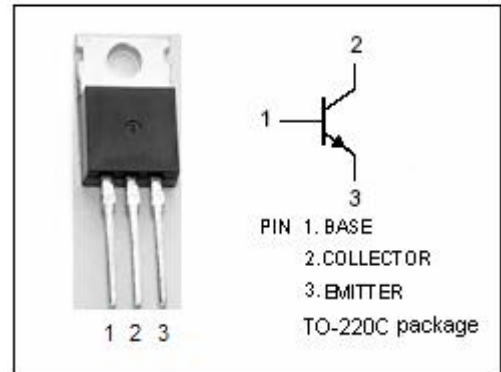
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 400V(\text{Min})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching regulator and high voltage switching applications.
- High speed DC-DC converter 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	2	A
I_B	Base Current-Continuous	0.5	A
P_C	Total Power Dissipation @ $T_C = 25^\circ\text{C}$	20	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	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 = 1mA ; I _E = 0	500		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A		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		1.0	mA
h _{FE-1}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	20		
h _{FE-2}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	8		

Switching times

t _r	Rise Time	V _{CC} ≈ 200V, R _L = 250 Ω, I _{B1} = -I _{B2} = 0.08A,		1.0	μ s
t _{stg}	Storage Time			2.5	μ s
t _f	Fall Time			1.0	μ s

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