

isc Silicon NPN Power Transistor

2SC2552

DESCRIPTION

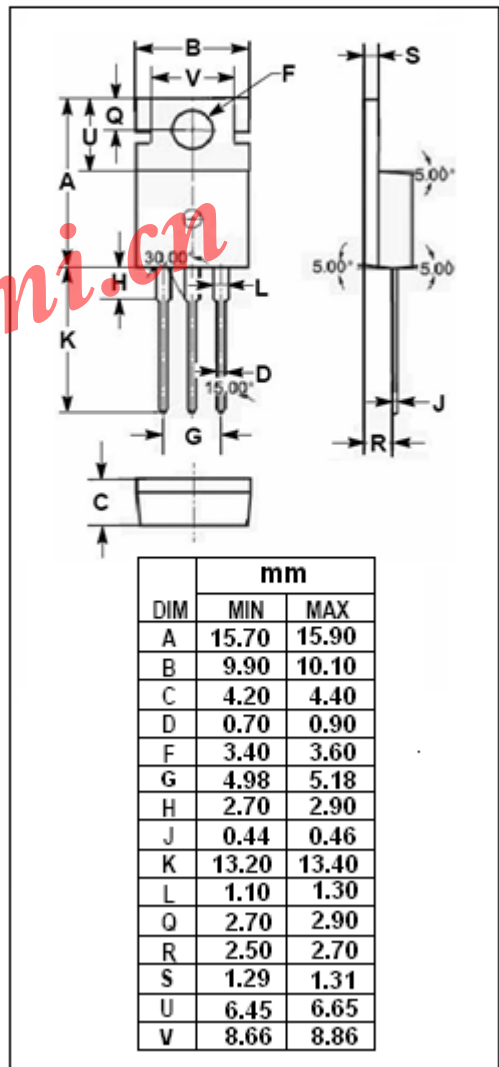
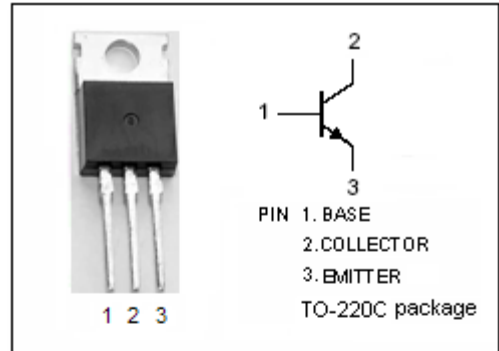
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 400V(\text{Min})$
- Fast Switching Speed

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 @ $T_a=25^\circ\text{C}$	1.5	W
	Total Power Dissipation @ $T_c=25^\circ\text{C}$	20	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}; I_B=0$	400		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=1\text{mA}; I_E=0$	500		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.2\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.2\text{A}$		1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=400\text{V}; I_E=0$		100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}; I_C=0$		1.0	mA
h_{FE-1}	DC Current Gain	$I_C=0.1\text{A}; V_{CE}=5\text{V}$	20		
h_{FE-2}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8		

Switching times

t_r	Rise Time	$V_{CC}\approx 200\text{V}, R_L=250\Omega,$ $I_{B1}=-I_{B2}=0.08\text{A},$		1.0	μs
t_{stg}	Storage Time			2.5	μs
t_f	Fall Time			1.0	μs