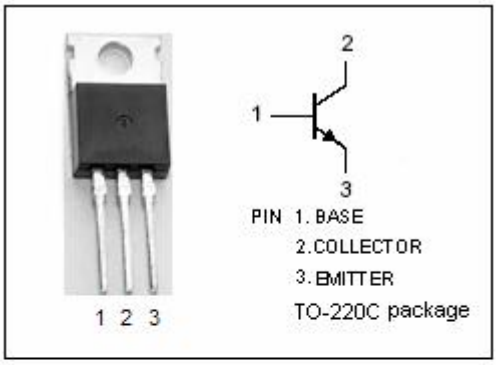
isc Silicon NPN Power Transistor 2N6703

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 110V(Min)
- High Switching Speed
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

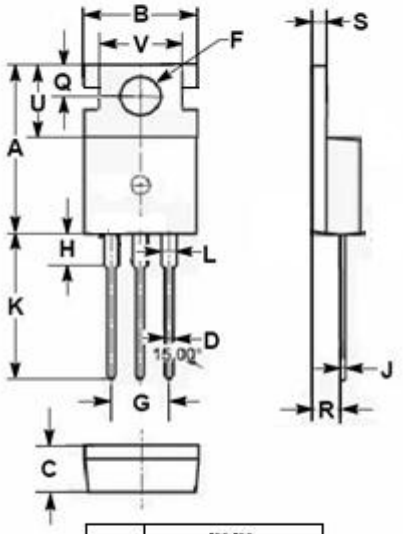
- Designed for converters, inverters, pulse-width-modulated regulators and a variety of power switching circuits.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEV}	Collector-Emitter Voltage-V_{BE}= -1.5V	160	V
V_{CEO}	Collector-Emitter Voltage	110	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	7	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation T_C=25℃	50	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Ttemperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.5	℃/W



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA; I_B= 0	110		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		0.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 0.7A		1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.5	V
I_{CEV}	Collector Cutoff Current	V_{CEV}= 160V;V_{BE}=-1.5V V_{CEV}= 160V;V_{BE}=-1.5V;T_J= 125℃		0.1 1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 0.2A ; V_{CE}= 2V	30		
h_{FE-2}	DC Current Gain	I_C= 5A ; V_{CE}= 2V	20		
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V, f_{test}= 0.1MHz	50	150	pF
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V	50	200	MHz
Switching Times					
t_d	Delay Time	I_C= 5A; I_{B1}= -I_{B2}= 0.5A,V_{BE}= -4V; V_{CC}= 70V, t_p= 20 μ s		0.1	μ s
t_r	Rise Time			0.25	μ s
t_s	Storage Time			1	μ s
t_f	Fall Time			0.5	μ s

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