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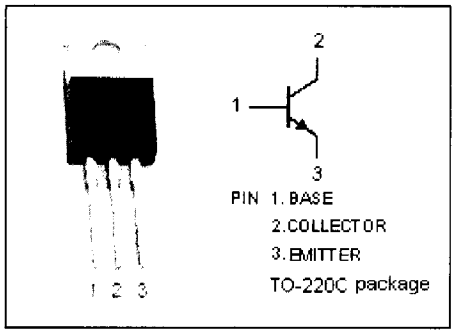
Silicon NPN Power Transistor

2SC2979



DESCRIPTION

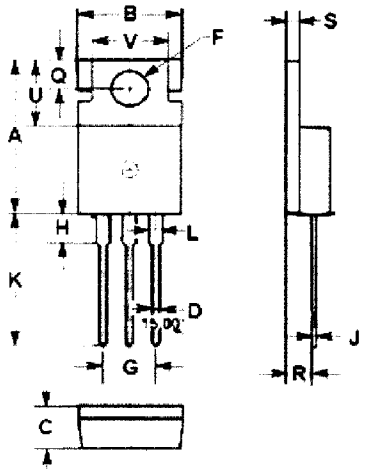
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 800V(Min)
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max)@ I_C= 0.75A
- Fast Switching Speed

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	3	A
I_{CM}	Collector Current-Peak	6	A
I_B	Base Current-Continuous	1.5	A
P_C	Total Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.90	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	13.00	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

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	800		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= 0.75A; I_B= 0.15A		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 0.75A; I_B= 0.15A		1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 750V; I_E=0		100	μ A
I_{CEO}	Collector Cutoff Current	V_{CE}= 650V; R_{BE}=0		100	μ A
h_{FE-1}	DC Current Gain	I_C= 0.3A; V_{CE}= 5V	15		
h_{FE-2}	DC Current Gain	I_C= 1.5A; V_{CE}= 5V	7		

Switching times

t_{on}	Turn-on Time	I_C= 1.5A, I_{B1}= 0.3A; I_{B2}= -0.75A, $V_{CC}\approx$ 250V		1.0	μ s
t_{stg}	Storage Time			3.0	μ s
t_f	Fall Time			1.0	μ s