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Silicon NPN Power Transistor

2SC2979

DESCRIPTION

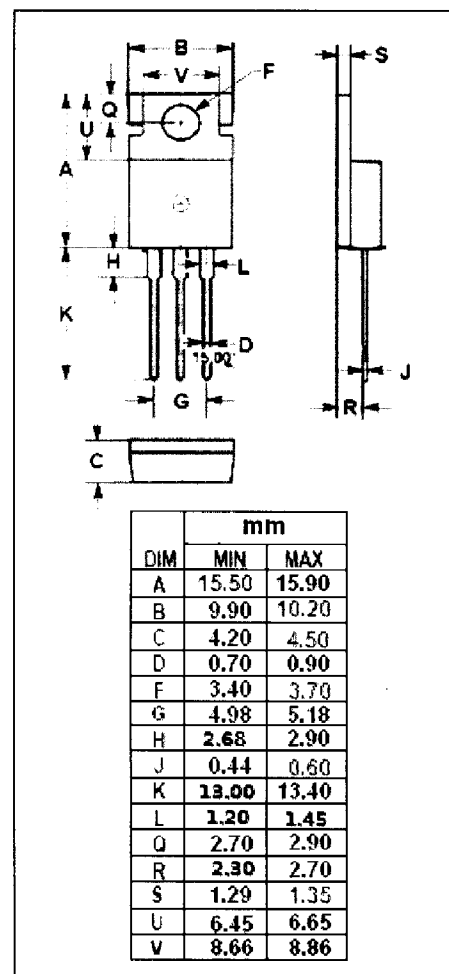
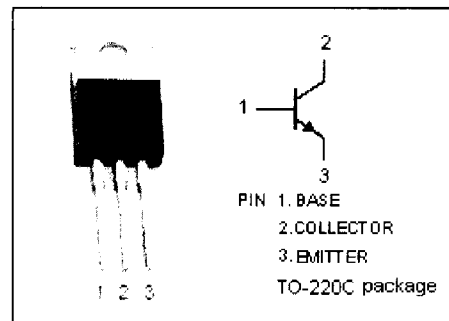
- Collector-Emitter Sustaining Voltage-
: $V_{CE(SUS)} = 800V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 0.75A$
- Fast Switching Speed

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ\text{C}$)

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 @ $T_C = 25^\circ\text{C}$	40	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

Silicon NPN Power Transistor

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=10\text{mA}; I_B=0$	800		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\text{mA}; I_C=0$	7		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=0.75\text{A}; I_B=0.15\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=0.75\text{A}; I_B=0.15\text{A}$		1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=750\text{V}; I_E=0$		100	μA
I_{CEO}	Collector Cutoff Current	$V_{CE}=650\text{V}; R_{BE}=0$		100	μA
h_{FE-1}	DC Current Gain	$I_C=0.3\text{A}; V_{CE}=5\text{V}$	15		
h_{FE-2}	DC Current Gain	$I_C=1.5\text{A}; V_{CE}=5\text{V}$	7		

Switching times

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