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Silicon NPN Power Transistor**2SC5249****DESCRIPTION**

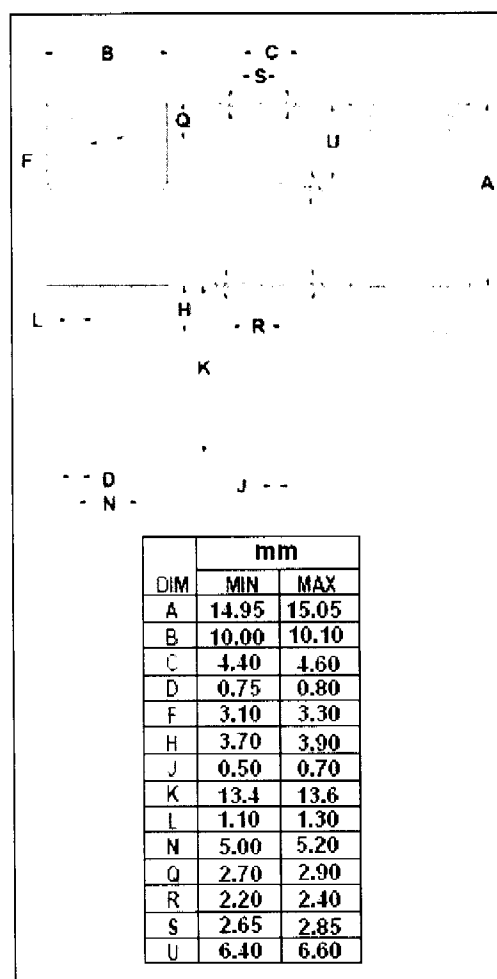
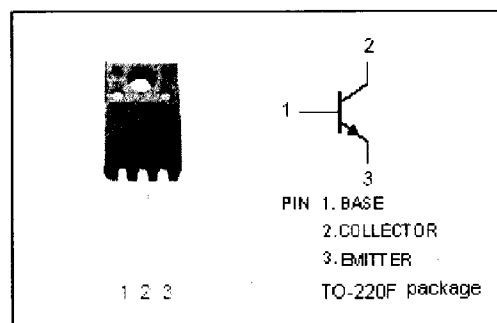
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 600V(\text{Min})$
- High Switching Speed

APPLICATIONS

- Designed for switching regulator and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	600	V
V_{CEO}	Collector-Emitter Voltage	600	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	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	35	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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Quality Semi-Conductors

Silicon NPN Power Transistor**2SC5249****ELECTRICAL CHARACTERISTICS****T_j=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}$; $I_B = 0$	600			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}$; $I_B = 0.2\text{A}$			0.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1\text{A}$; $I_B = 0.2\text{A}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 600\text{V}$; $I_E = 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 7\text{V}$; $I_C = 0$			100	μA
h_{FE}	DC Current Gain	$I_C = 1\text{A}$; $V_{CE} = 4\text{V}$	20		40	
C_{OB}	Output Capacitance	$I_E = 0$; $V_{CB} = 10\text{V}$; $f = 1\text{MHz}$		50		pF
f_T	Current-Gain—Bandwidth Product	$I_E = -0.3\text{A}$; $V_{CE} = 12\text{V}$		6		MHz

Switching Times

t_{on}	Turn-On Time	$I_C = 1\text{A}$; $I_{B1} = -I_{B2} = 0.1\text{A}$; $V_{CC} = 200\text{V}$; $R_L = 200\Omega$			1.0	μs
t_{stg}	Storage Time				19	μs
t_f	Fall Time				1.0	μs