

isc Silicon NPN Power Transistor

2SC4953

DESCRIPTION

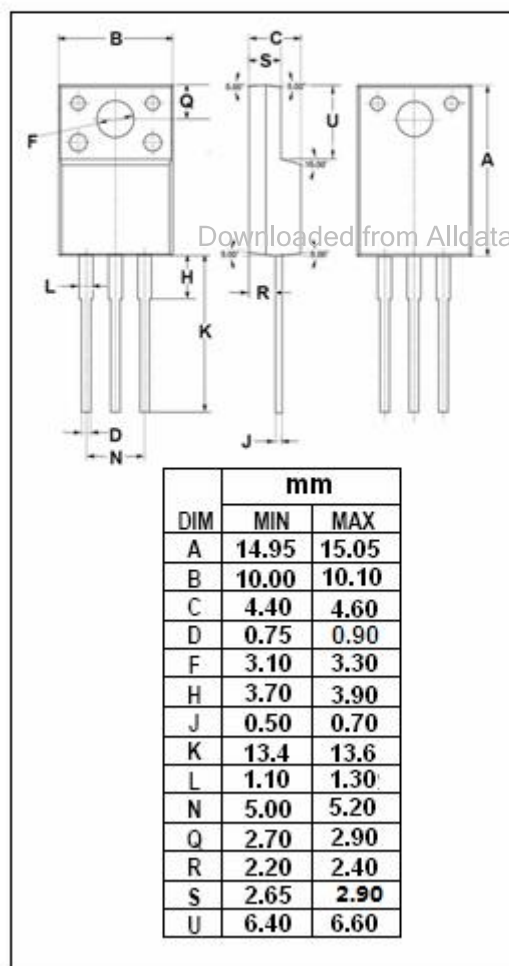
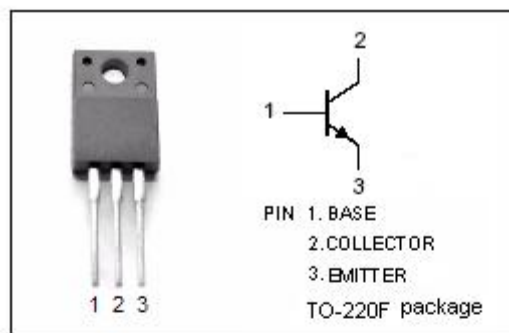
- Silicon NPN triple diffusion planar type
- High Speed Switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high breakdown voltage high speed switching

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	3	A
I_{CM}	Collector Current-peak	6	A
I_B	Base Current	1.2	A
P_C	Collector Power Dissipation $T_C=25^{\circ}\text{C}$	30	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon NPN Power Transistor**2SC4953****ELECTRICAL CHARACTERISTICS****T_c =25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.5A; I _B = 0.3A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1.5A; I _B = 0.3A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V; I _E = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 0.1A; V _{CE} = 5V	10			
h _{FE-2}	DC Current Gain	I _C = 1.2A; V _{CE} = 2V	8		40	
f _T	Current-Gain—Bandwidth Product	I _E = -0.2A; V _{CE} = 10V		10		MHz

Switching Times

t _{on}	Turn-On Time	I _C = 1.5A; V _{CC} = 200V; I _{B1} = 0.15A; I _{B2} = -0.3A;			1	μs
t _s	Storage Time				3	μs
t _f	Fall Time				0.3	μs