

isc Silicon NPN Power Transistor

2SC4381

DESCRIPTION

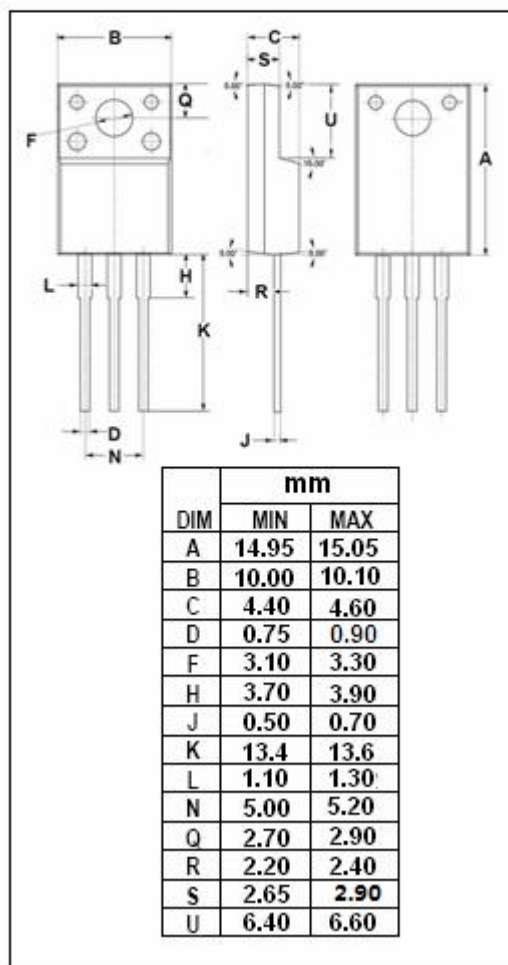
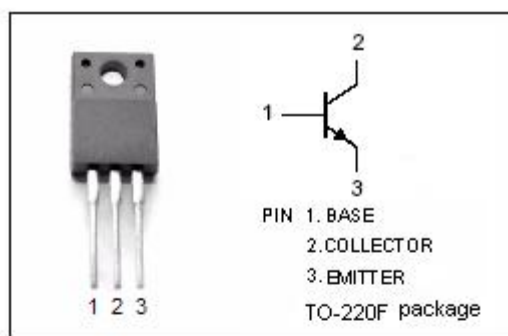
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V(\text{Min})$
- DC Current Gain-
: $h_{FE} = 60(\text{Min})@ (V_{CE} = 10V, I_C = 0.7A)$
- Complement to Type 2SA1667
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for TV vertical output ,audio output driver and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	2	A
I_B	Base Current-Continuous	1	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	25	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC4381****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 = 25mA ; I _B = 0	150			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.7A; I _B = 0.07A			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 150V ; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			10	μ A
h _{FE}	DC Current Gain	I _C = 0.7A ; V _{CE} = 10V	60			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1MHz		35		pF
f _T	Current-Gain—Bandwidth Product	I _E = -0.2A ; V _{CE} = 12V		15		MHz

Switching Times

t _{on}	Turn-On Time	I _C = 1A; I _{B1} = -I _{B2} = 0.1A; V _{CC} = 20V; R _L = 20 Ω		1.0		μ s
t _{stg}	Storage Time			3.0		μ s
t _f	Fall Time			1.5		μ s

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