

isc Silicon NPN Power Transistor

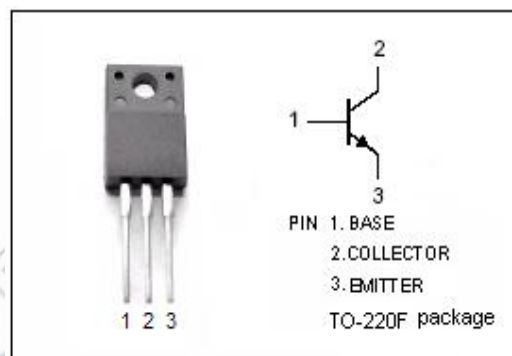
2SD2021

DESCRIPTION

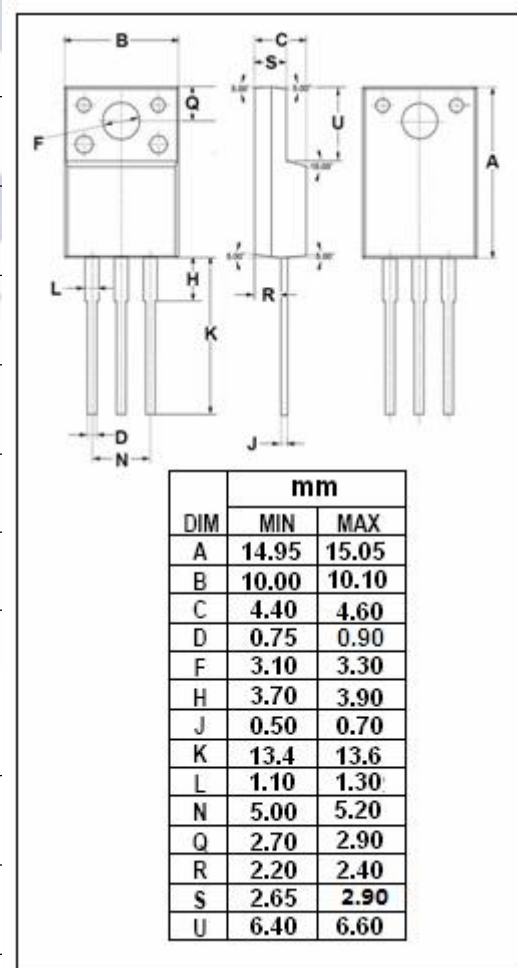
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 150V$ (Min)
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifier TV vertical deflection output 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_{CM}	Collector Current-Peak	5	A
P_C	Collector Power Dissipation @ $T_a = 25^\circ\text{C}$	2	W
	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	30	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-45~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SD2021****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 = 30mA; R _{BE} = ∞	150			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 5mA; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 0.5A; I _B = 0.05A			3.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 50mA ; V _{CE} = 5V			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CE} = 150V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 50mA; V _{CE} = 5V	100		320	
h _{FE-2}	DC Current Gain	I _C = 1A; V _{CE} = 5V	60			
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 100V; f _{test} = 1.0MHz		20		pF