

isc Silicon NPN Power Transistor

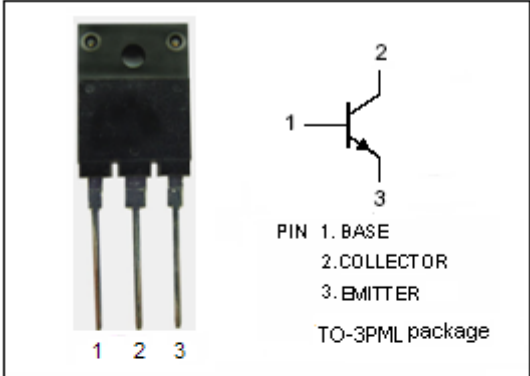
2SD2047

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO}=1500V$ (Min)
- High Speed Switching

APPLICATIONS

- Color TV horizontal deflection output
- Color display horizontal deflection output

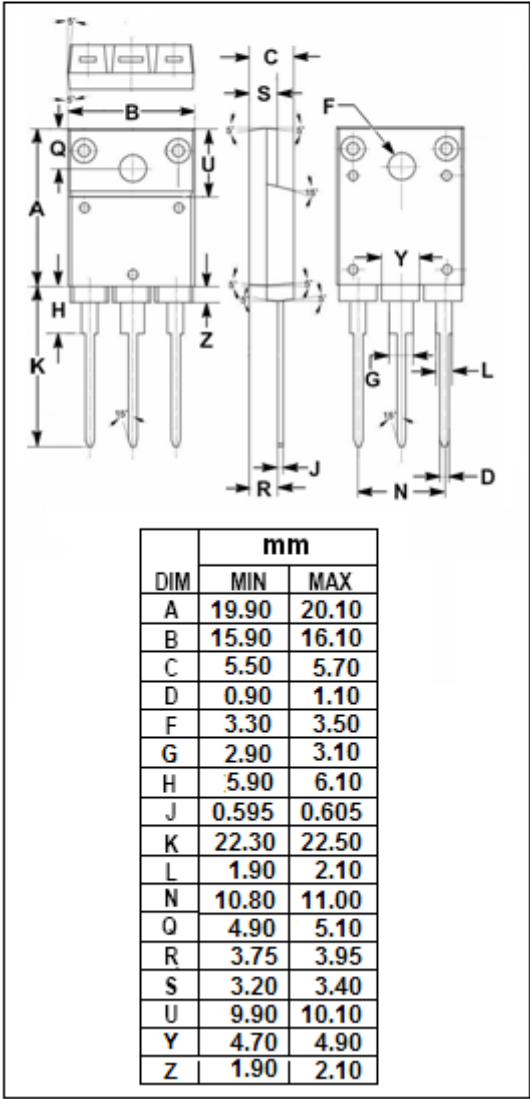


ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current- Continuous	5	A
I_{CP}	Collector Current-Pulse	10	A
I_B	Base Current- Continuous	3	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	80	W
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	1.55	$^{\circ}C/W$



ISC Silicon NPN Power Transistor**2SD2047****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	700			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	1500			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	10			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4.5A; I _B = 2.0A			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4.5A; I _B = 2.0A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V ; I _E = 0			50	μ A
		V _{CB} = 1500V ; I _E = 0			1.0	mA
h _{FE}	DC Current Gain	I _C = 1A ; V _{CE} = 5V	18		50	

Switching Times

t _{on}	Turn-on Time	I _C = 2.5A, I _{B1} = 0.25A; I _{B2} = -0.5A			1.0	μ s
t _{stg}	Storage Time				3.0	μ s
t _f	Fall Time				0.5	μ s