

isc Silicon NPN Power Transistor

2SD1848

DESCRIPTION

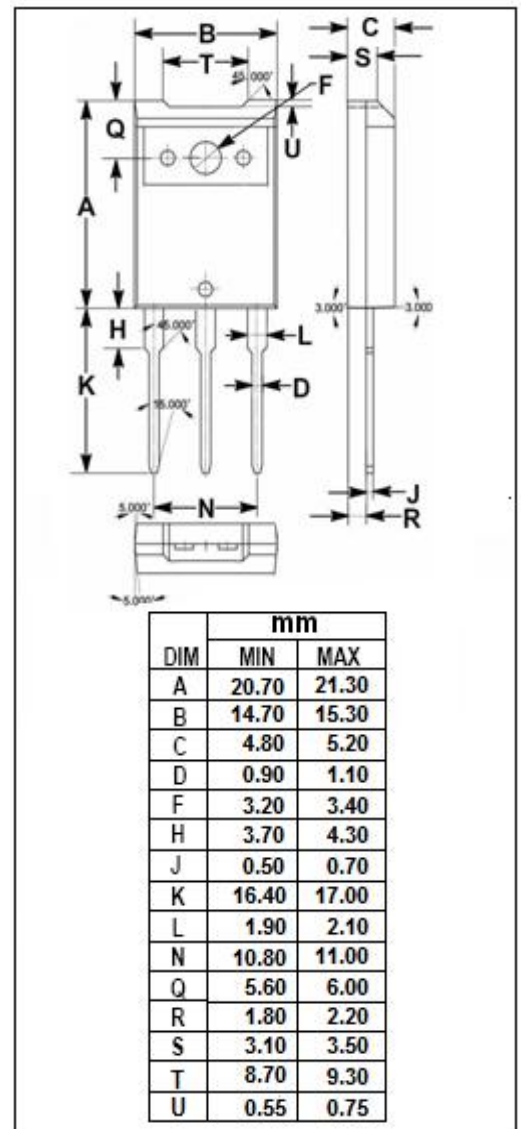
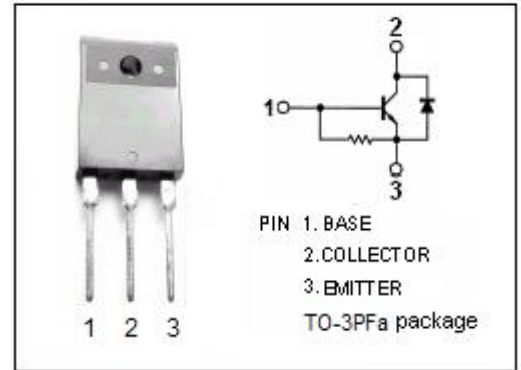
- Collector-Base Breakdown Voltage-
: $V_{CBO} = 1300V$ (Min.)
- High Switching Speed
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector- Base Voltage	1300	V
V_{CES}	Collector-Emitter Voltage	1300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	18	A
I_B	Base Current- Continuous	2.5	A
P_C	Collector Power Dissipation @ $T_a=25^\circ C$	3	W
	Collector Power Dissipation @ $T_C=25^\circ C$	100	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 200mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 1.2A			8.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 1.2A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V; I _E = 0 V _{CB} = 1300V; I _E = 0			10 1.0	μA mA
h _{FE-1}	DC Current Gain	I _C = 1A; V _{CE} = 5V	5		25	
h _{FE-2}	DC Current Gain	I _C = 5A; V _{CE} = 10V	4.5			
f _T	Current-Gain—Bandwidth Product	I _C = 1A; V _{CE} = 10V		2		MHz
V _{ECF}	C-E Diode Forward Voltage	I _F = 6A			2.3	V

Switching times, Resistive Load

t _{stg}	Storage Time	I _C = 5A; I _{B1} = 1.2A; I _{B2} = -2.4A; V _{CC} = 200V		1.5		μs
t _f	Fall Time			0.2		μs

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