

isc Silicon NPN Power Transistor

2SD2498

DESCRIPTION

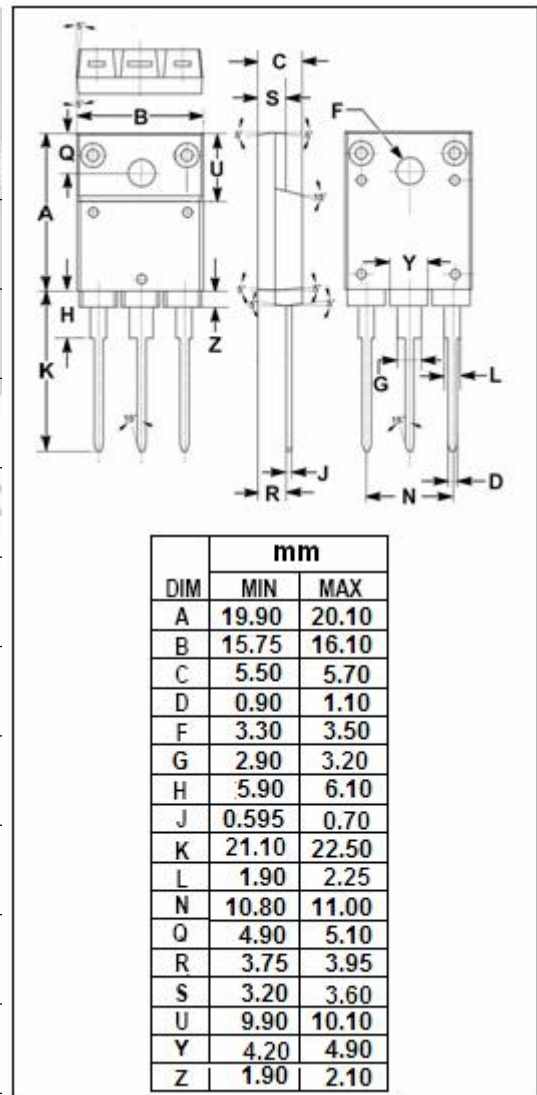
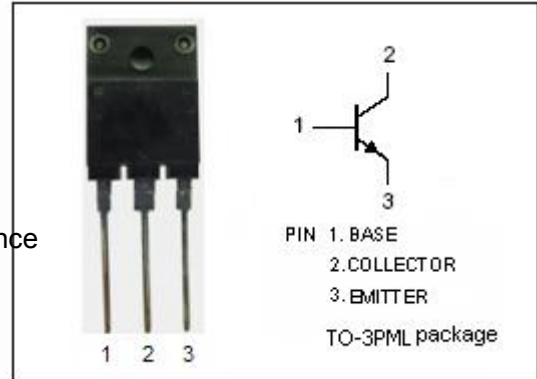
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Horizontal deflection output for high resolution display, color TV
- High speed switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	6	A
I_{CP}	Collector Current- Pulse	12	A
I_B	Base Current- Continuous	3	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	50	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



isc Silicon NPN Power Transistor**2SD2498****ELECTRICAL CHARACTERISTICS** $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10\text{mA}; I_C = 0$	600			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4.0\text{A}; I_B = 0.8\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 4.0\text{A}; I_B = 0.8\text{A}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 1500\text{V}; I_E = 0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$			10	μA
h_{FE-1}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	10		30	
h_{FE-2}	DC Current Gain	$I_C = 4\text{A}; V_{CE} = 5\text{V}$	5		9	
f_T	Current-Gain—Bandwidth Product	$I_C = 0.1\text{A}; V_{CE} = 10\text{V}$		2		MHz
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}; f_{test} = 1.0\text{MHz}$		95		pF

Switching times

t_{stg}	Storage Time	$I_{CP} = 4\text{A}, I_{B1(end)} = 0.8\text{A};$ $f_H = 15.75\text{kHz}$			10	μs
t_f	Fall Time				0.7	μs