

isc Silicon NPN Power Transistor

ET206

DESCRIPTION

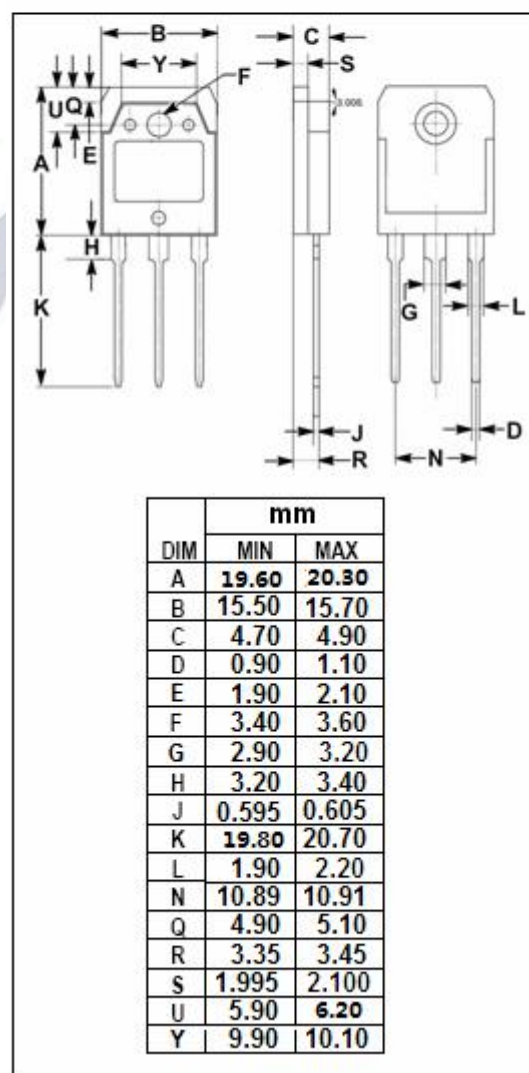
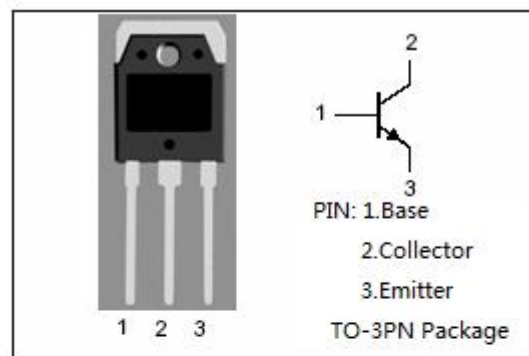
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 500V(\text{Min})$
- High Switching Speed

APPLICATIONS

- Switching regulator and high voltage switching applications.
- High frequency inverters
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	850	V
V_{CEO}	Collector-Emitter Voltage	500	V
V_{EBO}	Emitter-Base voltage	10	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	3	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	80	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

$T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}$; $I_B = 0$	500			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}$; $I_E = 0$	850			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 4\text{A}$; $I_B = 800\text{mA}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 4\text{A}$; $I_B = 800\text{mA}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 850\text{V}$; $I_E = 0$			1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 10\text{V}$; $I_C = 0$			1.0	mA
h_{FE}	DC Current Gain	$I_C = 1\text{A}$; $V_{CE} = 5\text{V}$	15			

Switching times

t_{on}	Rise Time	$I_C = 2\text{A}$, $I_{B1} = 200\text{mA}$; $I_{B2} = -400\text{mA}$; $R_L = 150\Omega$; $P_W = 20\mu\text{s}$ Duty Cycle $\leq 2\%$			1.0	μs
t_{stg}	Storage Time				3.5	μs
t_f	Fall Time				1.0	μs