

isc Silicon NPN Power Transistor

2N6935

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 400V(\text{Min})$
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

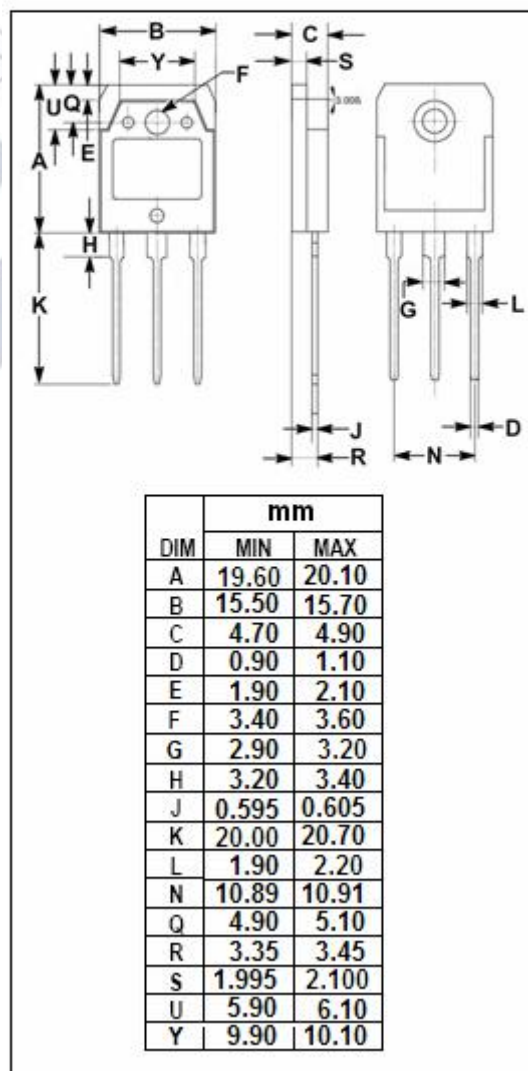
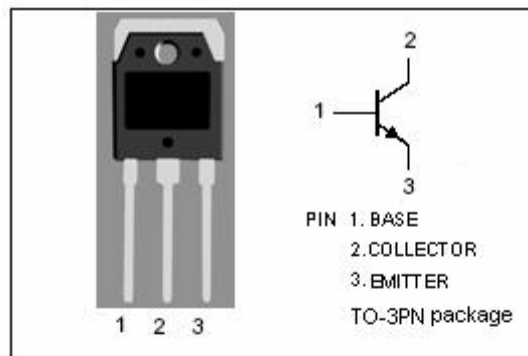
- Designed for off-line power supplies, switching regulator and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	650	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base voltage	8	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	23	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	175	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.71	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}; I_E = 0$	650			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}; R_{BE} = \infty$	400			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}; I_C = 0$	8			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 15\text{A}; I_B = 3.0\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 15\text{A}; I_B = 3.0\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 650\text{V}; I_E = 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 8\text{V}; I_C = 0$			100	μA
h_{FE}	DC Current Gain	$I_C = 15\text{A}; V_{CE} = 3\text{V}$	8		35	
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}; f_{test} = 1.0\text{MHz}$	150			pF

Switching Times

t_d	Delay Time	$I_C = 15\text{A}, I_{B1} = -I_{B2} = 3\text{A}$ $R_L = 20\Omega; V_{CC} = 300\text{V}$			0.1	μs
T_r	Rise Time				0.7	μs
t_{stg}	Storage Time				2.5	μs
t_f	Fall Time				0.5	μs

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