

isc Silicon NPN Power Transistor

2SC3855

DESCRIPTION

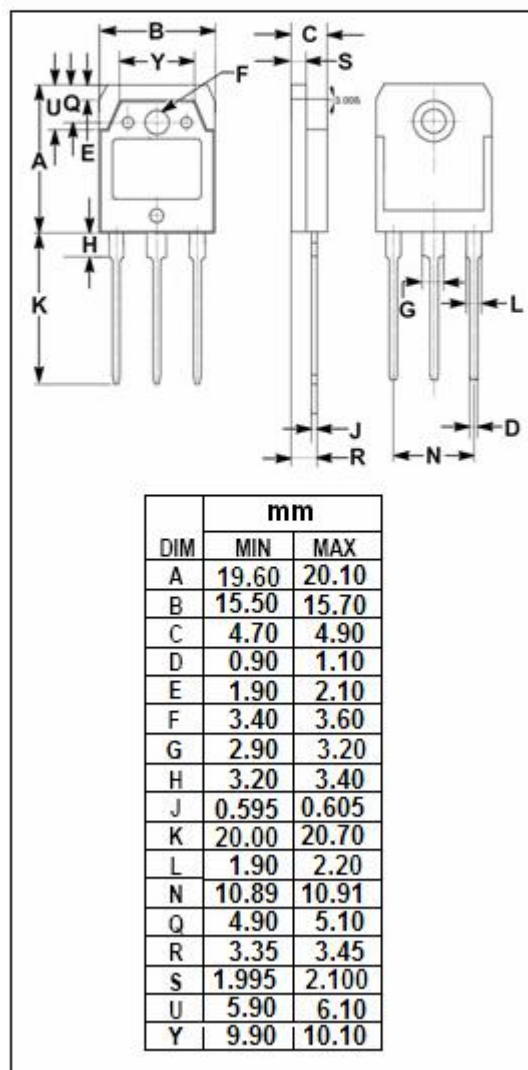
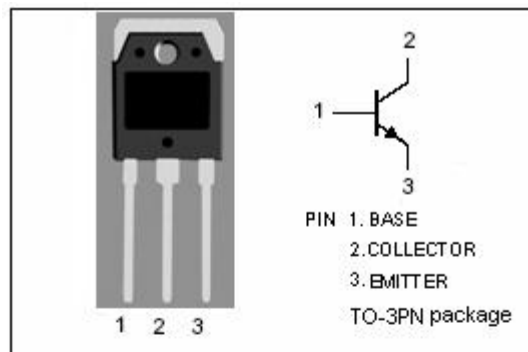
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 140V(\text{Min})$
- DC Current Gain-
: $h_{FE} = 50(\text{Min}) @ I_C = 3A$
- Complement to Type 2SA1491
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	4	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 50mA; I_B = 0$	140			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 5A; I_B = 0.5A$			2.0	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 200V; I_E = 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 6V; I_C = 0$			100	μA
h_{FE}	DC Current Gain	$I_C = 3A; V_{CE} = 4V$	50			
f_T	Current-Gain—Bandwidth Product	$I_E = -0.5A; V_{CE} = 12V$		20		MHz

Switching Times

t_{on}	Turn-On Time	$I_C = 5A; I_{B1} = -I_{B2} = 0.5A;$ $V_{CC} = 60V; R_L = 12\Omega$		0.3		μs
t_{stg}	Storage Time			2.4		μs
t_f	Fall Time			0.4		μs

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