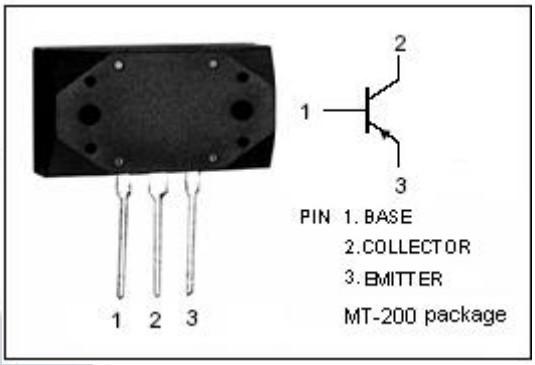
isc Silicon PNP Power Transistor — 2SA1075

DESCRIPTION

- High Collector-Emitter Breakdown Voltage- $V_{(BR)CEO}$= -160V(Min)
- Good Linearity of h_{FE}
- Complement to Type 2SC2525
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

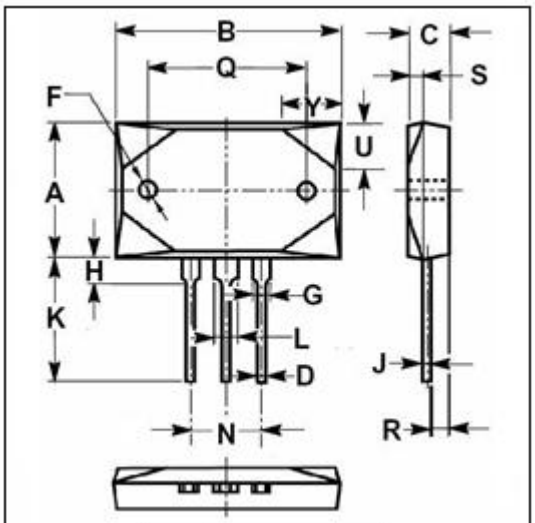


APPLICATIONS

- Power amplifier applications
- switching regulators
- DC-DC converter applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current-Continuous	-12	A
P_C	Collector Power Dissipation @ T_C=25℃	120	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	MAX
A	21.00	21.70
B	35.80	36.70
C	5.60	6.20
D	1.04	1.07
F	3.10	3.50
G	1.90	2.40
H	3.60	4.00
J	0.55	0.85
K	20.00	20.80
L	2.90	3.40
N	10.50	11.10
Q	24.00	24.50
R	2.90	3.30
S	2.00	2.20
U	6.90	7.10
Y	8.90	9.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter –Base Breakdown Voltage	I_C=- 50uA ; I_B= 0	-7			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=- 1mA ; I_B= 0	-120			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=- 50uA ; I_B= 0	-120			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -5A; I_B= -0.5A		-0.9	-1.8	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -120V; I_E= 0			-50	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= -120V; R_{EB}=∞			-1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -7V; I_C=0			-50	μA
h_{FE-1}	DC Current Gain	I_C=-1A; V_{CE}= -5V	60		200	
h_{FE-2}	DC Current Gain	I_C= - 7A; V_{CE}= -5V	40			
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= -10V;f_{test}= 1.0MHz		300	470	pF
f_T	Current-Gain—Bandwidth Product	I_E= -1A; V_{CE}= -10V,f=10MHZ	45	60		MHz

Switching times

t_{on}	Turn-on Time	I_C=- 7.5A ,R_L= 4Ω , I_{B1}= -I_{B2}= -0.75A		0.15		μs
t_{stg}	Storage Time			0.5		μs
t_f	Fall Time			0.11		μs

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