New Jersey Semi-Conductor Products, Inc.

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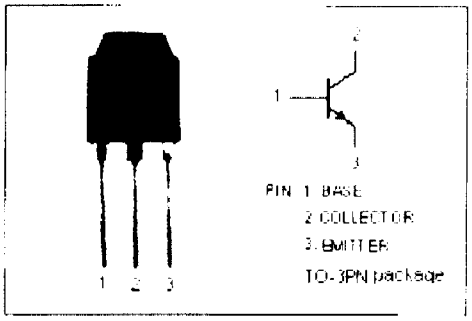
Silicon NPN Power Transistor

2SC3256

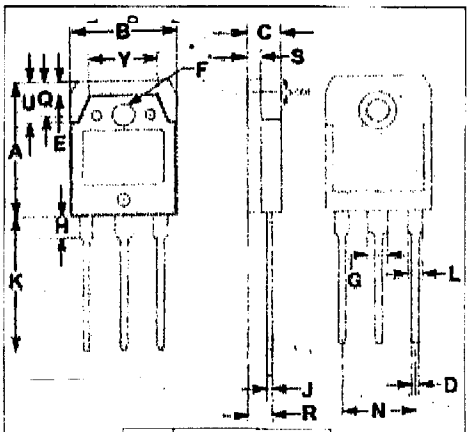


DESCRIPTION

- Low Collector Saturation Voltage
- Good Linearity of h_{FE}
- High Switching Speed
- Complement to Type 2SA1292

APPLICATIONS

- Various inductance lamp drivers for electrical equipment
- Inverters, converters
- Power amplifier
- Switching regulator, dirver



DIM	mm MIN	MAX
A	19.90	20.10
B	15.38	15.42
C	4.75	4.85
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.98	3.02
H	3.20	3.40
J	0.595	0.605
K	19.95	20.25
L	1.98	2.02
N	10.89	10.91
Q	4.95	5.05
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Pulse	20	A
P_C	Collector Power Dissipation @ T_C=25℃	80	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector Emitter Breakdown Voltage	I_C= 1mA; R_{BE}= ∞	60			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	5			V
$V_{CE\ sat}$	Collector-Emitter Saturation Voltage	I_C= 7.5A; I_B= 0.375A			0.4	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 40V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C= 0			100	μA
h_{FE}	DC Current Gain	I_C= 1A; V_{CE}= 2V	70		280	
f_T	Current-Gain—Bandwidth Product	I_C=1A; V_{CE}= 5V		100		MHz

Switching times

t_{on}	Turn-on Time	I_C= 6A; I_{B1}= -I_{B2}= 0.3A R_L= 3.3Ω; V_{CC}= 20V		0.1		μs
t_{stg}	Storage Time			0.5		μs
t_f	Fall Time			0.1		μs

◆ h_{FE} Classifications

Q	R	S
70-140	100-200	140-280