

isc Silicon NPN Power Transistor

2SC2738

DESCRIPTION

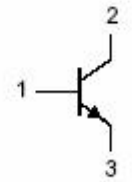
- Collector-Emitter Sustaining Voltage-
:V_{CEO(SUS)}= 400V(Min)
- High Speed Switching
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

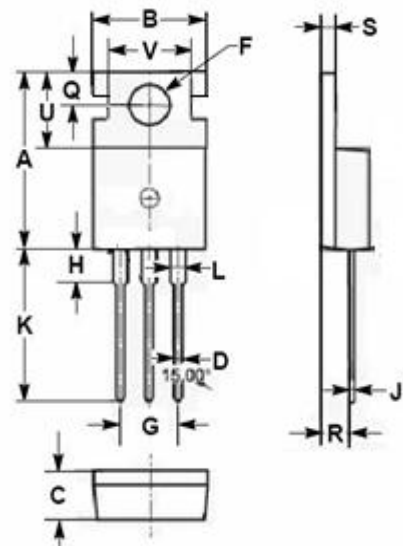
- Designed for power amplifier, switching regulators, inverters, solenoid and relay drivers applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	500	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	2	A
I _{CM}	Collector Current-Peak	4	A
I _B	Base Current-Continuous	0.5	A
P _C	Collector Power Dissipation @ T _C =25°C	25	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



PIN 1. BASE
2. COLLECTOR
3. EMITTER
TO-220C package



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

isc Silicon NPN Power Transistor**2SC2738****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA, I _B = 0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 500V ; I _E = 0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.1A; V _{CE} = 5V	15			
h _{FE-2}	DC Current Gain	I _C = 1A; V _{CE} = 5V	8			
f _T	Current-Gain—Bandwidth Product	I _C = 0.2A; V _{CE} = 10V	8			MHz

Switching Times

t _{on}	Turn-on Time	I _C = 1A, I _{B1} = -I _{B2} = 0.2A			1.0	μ s
t _{stg}	Storage Time				3.0	μ s
t _f	Fall Time				1.0	μ s

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