

Silicon NPN Triple Diffused Power Transistors

TO-220 Package

2SC2738(NPN)

Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	500	V
Collector-Emitter Voltage	V _{CE0}	400	V
Emitter-Base Voltage	V _{EB0}	7	V
Peak Collector Current	I _{CM}	4	A
Collector Current	I _C	2	A
Base Current	I _B	.5	A
Collector Power Dissipation	P _C *	25	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~150	°C

*T_c=25°C

Applications:

- RF Power Amp
- Switching regulators
- Inverters
- Solenoid and Relay Drivers

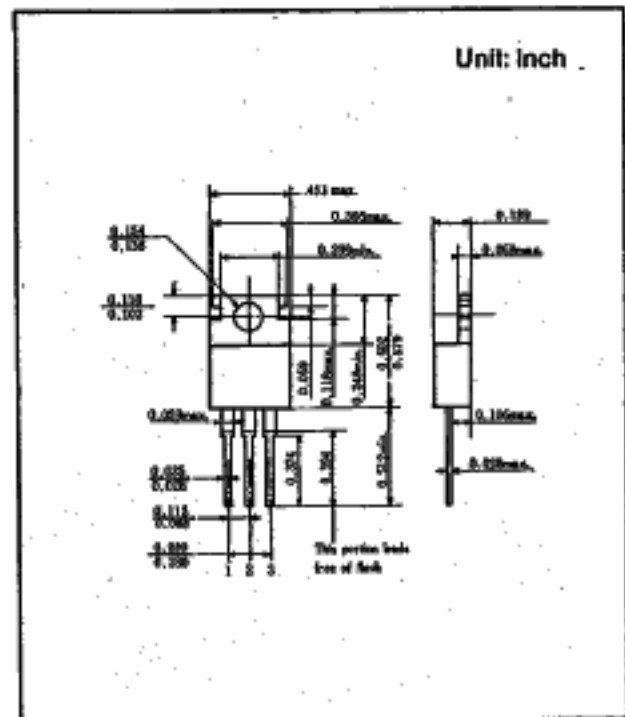
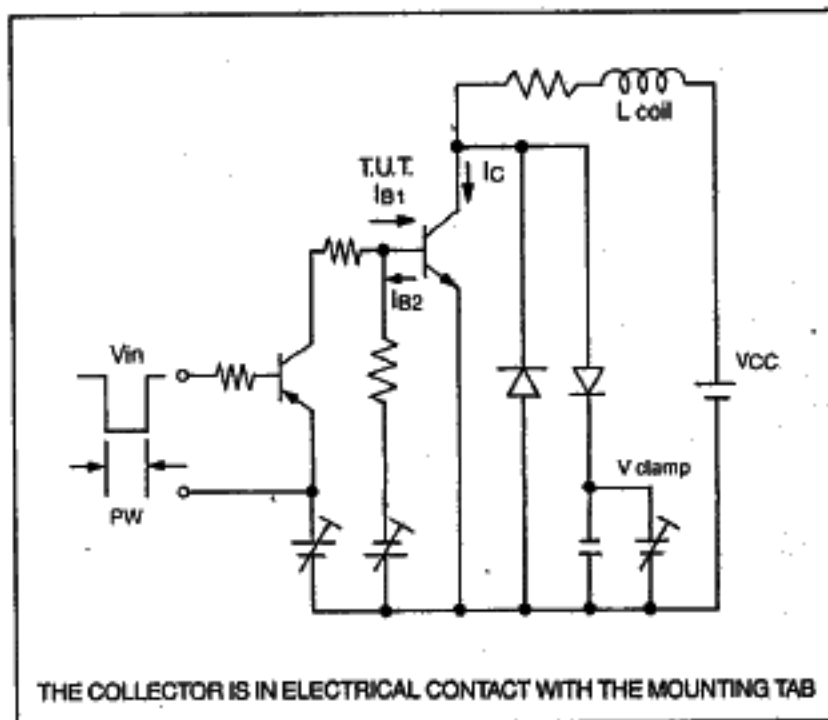
Features:

- High-speed switching—t_f: 1.0 μs (max.)
- High voltage/high reliability (glassivation adapted)—V_{CB0}: 500V (min.)
- Low collector saturation voltage—V_{CE(sat)}: 1V (max.)

Electrical Characteristics (Ta=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector Cutoff Current	I _{CB0}	V _{CB} =500V, I _E =0			100	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} =5V, I _C =0			100	μA
Collector-Emitter Sustained Voltage	V _{CE0(sus)}	I _C =0.2A, L=25mH	400			V
DC Current Gain	h _{FE}	V _{CE} =5V, I _C =0.1A	15			
	h _{FE}	V _{CE} =5V, I _C =1A	8			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =1A, I _B =.2A			1	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =1A, I _B =.2A			1.5	V
Gain Bandwidth Product	f _T	V _{CE} =10V, I _C =.2A		11		MHz
Turn On Time	t _{on}				1	μs
Storage Time	t _s	I _C =1A I _{B1} =-I _{B2} =.2A			3	μs
Fall Time	t _f				1	μs

Specifications are subject to change for improvement without prior notice.



Typical Characteristics

