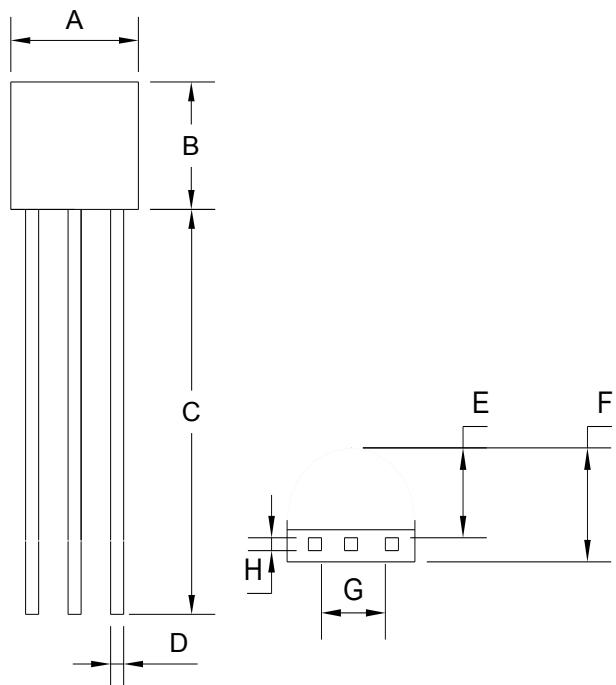


	TS13002A High Voltage NPN Transistor											
	 TO-92	BV_{CEO} = 400V BV_{CBO} = 700V I_c = 0.3A V_{CE(SAT)}, = 1.5V @ I_c / I_b = 200mA / 20mA										
Features <ul style="list-style-type: none"> ◊ High voltage. ◊ High speed switching 		Ordering Information <table border="1" style="width: 100%;"> <thead> <tr> <th>Part No.</th> <th>Packing</th> <th>Package</th> </tr> </thead> <tbody> <tr> <td>TS13002ACT B0</td> <td>Bulk</td> <td>TO-92</td> </tr> <tr> <td>TS13002ACT A3</td> <td>AMMO pack</td> <td>TO-92</td> </tr> </tbody> </table>		Part No.	Packing	Package	TS13002ACT B0	Bulk	TO-92	TS13002ACT A3	AMMO pack	TO-92
Part No.	Packing	Package										
TS13002ACT B0	Bulk	TO-92										
TS13002ACT A3	AMMO pack	TO-92										
Structure <ul style="list-style-type: none"> ◊ Silicon triple diffused type. ◊ NPN silicon transistor 												
Absolute Maximum Rating (Ta = 25 °C unless otherwise noted)												
Parameter		Symbol	Limit	Unit								
Collector-Base Voltage		V _{CBO}	700V	V								
Collector-Emitter Voltage		V _{CEO}	400V	V								
Emitter-Base Voltage		V _{EBO}	9	V								
Collector Current	DC	I _c	0.3	A								
	Pulse		0.5									
Collector Power Dissipation		P _D	0.6	W								
Operating Junction Temperature		T _J	+150	°C								
Operating Junction and Storage Temperature Range		T _{STG}	-55 to +150	°C								
Electrical Characteristics												
Ta = 25 °C unless otherwise noted												
Parameter	Conditions	Symbol	Min	Typ	Max	Unit						
Static												
Collector-Base Voltage	I _c = 10mA, I _b = 0	BV _{CBO}	700	--	--	V						
Collector-Emitter Breakdown Voltage	I _c = 1mA, I _e = 0	BV _{CEO}	400	--	--	V						
Emitter-Base Breakdown Voltage	I _e = 1mA, I _c = 0	BV _{EBO}	9	--	--	V						
Collector Cutoff Current	V _{CB} = 700V, I _e = 0	I _{CBO}	--	--	10	uA						
Emitter Cutoff Current	V _{EB} = 7V, I _c = 0	I _{EBO}	--	--	10	uA						
Collector-Emitter Saturation Voltage	I _c / I _b = 200mA / 20mA	V _{CE(SAT)1}	--	--	1.5	V						
	I _c / I _b = 100mA / 10mA	V _{CE(SAT)2}	--	--	1.0							
	V _{CE} = 10V, I _c = 10uA	h _{FE1}	15	--	40							
DC Current Gain	V _{CE} = 10V, I _c = 100mA	h _{FE2}	25	--	40							
	V _{CE} = 10V, I _c = 280mA	h _{FE3}	12	--	30							
	V _{CE} = 10V, I _c = 0.1A	f _T	4	--	--	MHz						
Output Capacitance	V _{CB} = 10V, f = 0.1MHz	C _{ob}	--	21	--	pF						
Turn On Time	V _{CC} = 125V, I _c = 100mA, I _{b1} = I _{b2} = 20mA, R _L = 125ohm	t _{ON}	--	1.1	--	μS						
Storage Time		t _{STG}	--	--	4	μS						
Fall Time		t _f	--	--	0.7	μS						

Note: pulse test: pulse width <=5mS, duty cycle <=10%

TO-92 Mechanical Drawing

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.30	4.70	0.169	0.185
B	4.30	4.70	0.169	0.185
C	14.30(typ)		0.563(typ)	
D	0.43	0.49	0.017	0.019
E	2.19	2.81	0.086	0.111
F	3.30	3.70	0.130	0.146
G	2.42	2.66	0.095	0.105
H	0.37	0.43	0.015	0.017