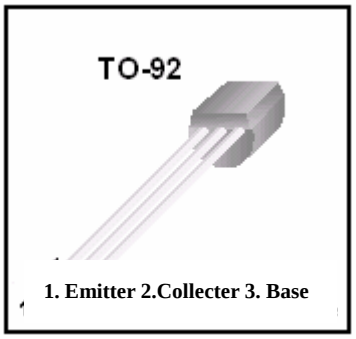
MICRO ELECTRONIC

13003A

HIGH VOLTAGE POWER TRANSISTOR

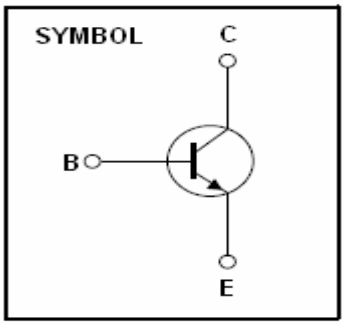
FEATURES: High Voltage Capability
High Speed Switching
Wide SOA

APPLICATIONS: Flourscent Lamp
Electronic Ballast
Electronic Transformer



LIMMITING VALUES(T_j=25℃ Unless OtherWise Stated)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current	I_C	1.5	A
Total Power Dissipattion	P_C	20	W
Storage Temperature	T_{stg}	-65～150	℃
Junction Temperature	T_j	150	℃



ELECTRICAL CHARACTERISTICS (Tj=25℃ Unless Otherwise Stated)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=0.5mA,I_E=0	600		V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA,I_B=0	400		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=1mA,I_C=0	9		V
Collector-Base Cutoff Current	I_{CBO}	V_{CB}=550V, I_E=0		10	μA
Collector-Emitter Cutoff Current	I_{CEO}	V_{CE}=400V, I_B=0		20	μA
Emitter-Collector Cutoff Current	I_{EBO}	V_{EB}=9V, I_C=0		20	μA
DC Current Gain	hFE(1)	V_{CE}=5V,I_C=100mA	10	40	
DC Current Gain	hFE(2)	V_{CE}=5V,I_C=1mA	9		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=0.75A,I_B=0.25A		0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=0.75A,I_B=0.25A		1.2	V
Storage Time	T_s	V_{CC}=250V		3	
Falling Time	T_f	I_C=5I_B		0.8	uS
		I_{B1}=- I_{B2}=0.2A			

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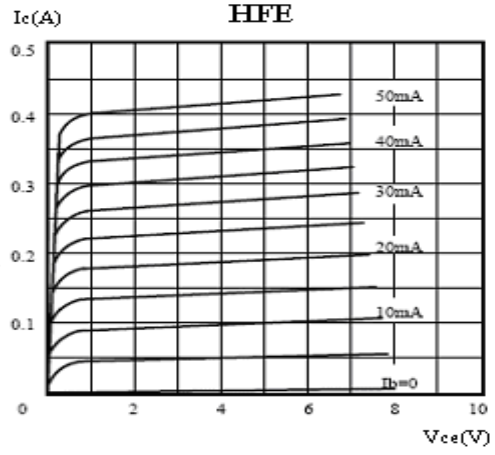
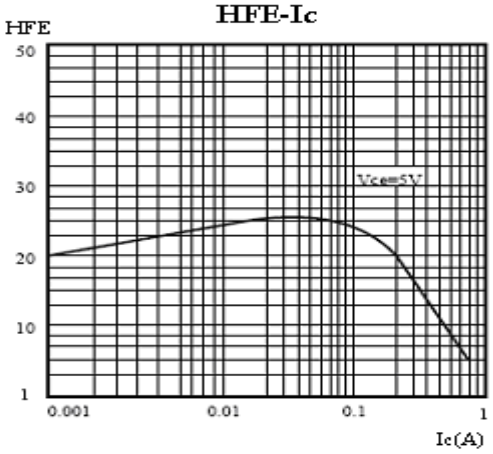
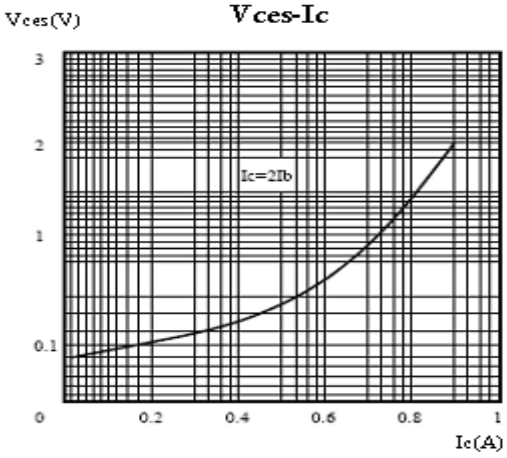
HFE



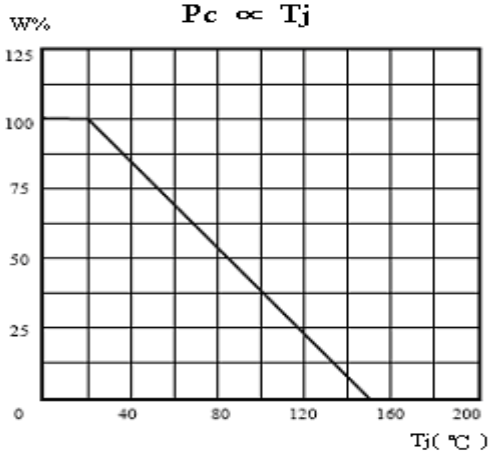
HFE-Ic



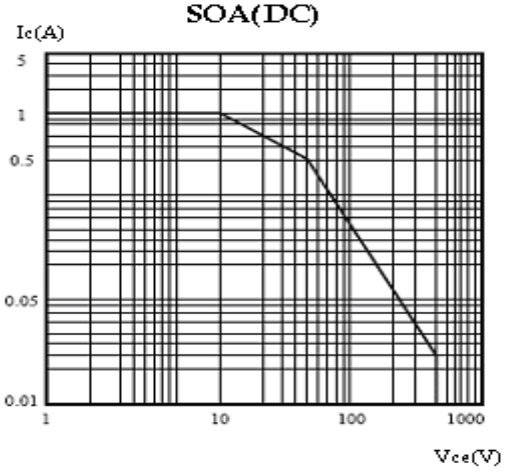
Vces-Ic



Pc ∝ Tj



SOA(DC)



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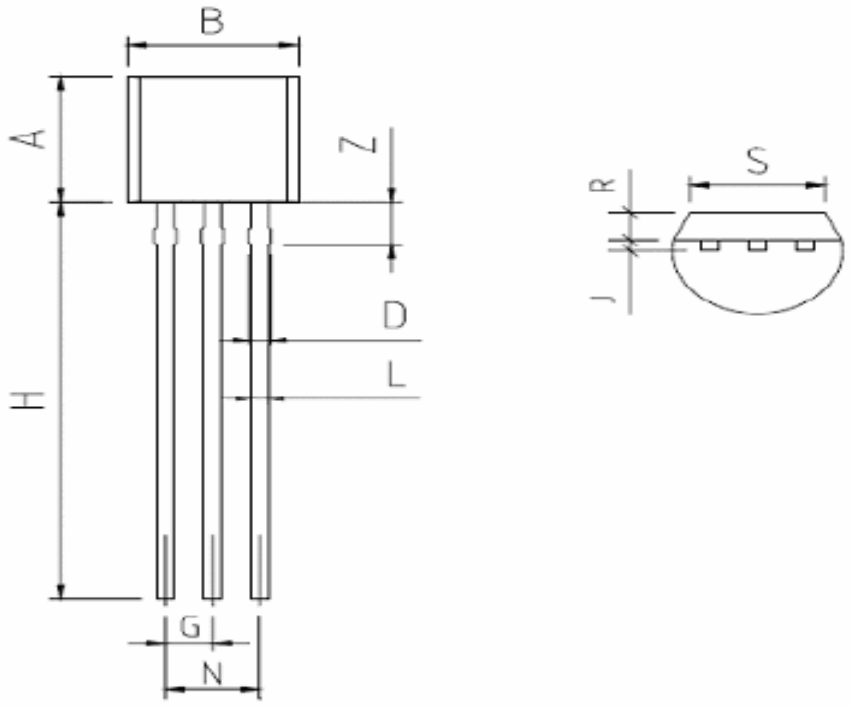
T0-92 MECHANICAL DATA

UNIT: mm



SYMBOL	Min	Nom	Max
A	4.4	4.6	4.8
B	4.0	4.2	4.5
C			
D	0.45	0.50	0.55
F			
G		1.27	
H			
J	0.32	0.35	0.38
K			
L	0.40	0.45	0.50
N		2.54	
P			
Q			
R	1.4	1.5	1.6
S	3.8	4.0	4.2
Z		2.0	2.2

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