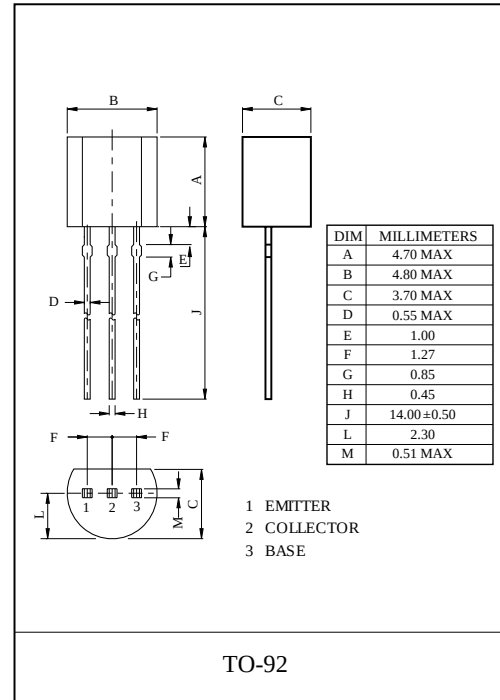


NPN SILICON POWER TRANSISTORS

Purpose: High frequency electronic lighting ballast applications,
converters, inverters, switching regulators, etc.

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

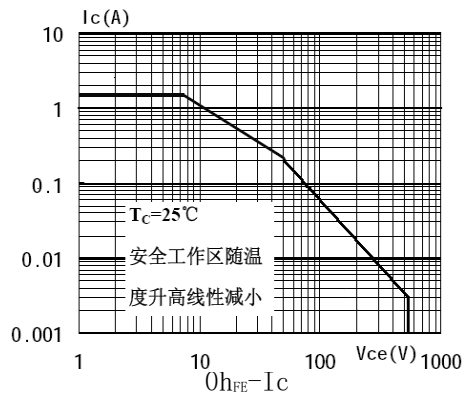
Symbol	Rating	Unit
V_{CB0}	900	V
V_{CE0}	530	V
V_{EB0}	9.0	V
I_C	1.5	A
I_{CP}	3.0	A
$P_C (T_a=25^\circ\text{C})$	1.0	W
T_j	150	$^\circ\text{C}$
T_{stg}	-55~150	$^\circ\text{C}$



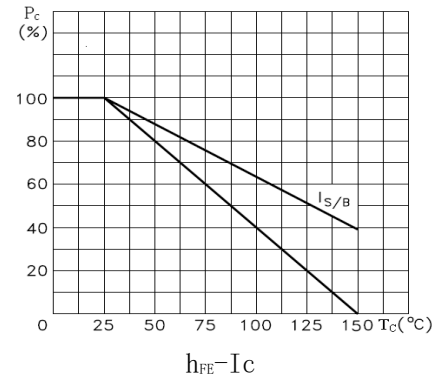
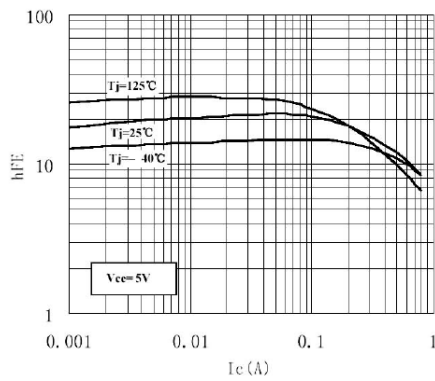
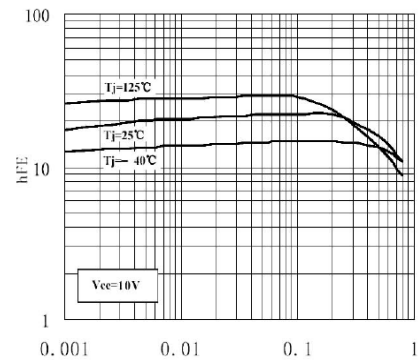
Electrical characteristics ($T_a=25^\circ\text{C}$)

Symbol	Test condition	Rating			Unit
		Min	Typ	Max	
V_{CB0}	$I_C=1\text{mA}$ $I_E=0$	900			V
V_{CE0}	$I_C=10\text{mA}$ $I_B=0$	530			V
V_{EB0}	$I_E=1\text{mA}$ $I_C=0$	9			V
I_{CB0}	$V_{CB}=900\text{V}$ $I_E=0$			0.1	mA
I_{CE0}	$V_{CE}=530\text{V}$ $I_B=0$			0.1	mA
I_{EB0}	$V_{EB}=9.0\text{V}$ $I_C=0$			0.1	mA
$h_{FE(1)}$	$V_{CE}=10\text{V}$ $I_C=400\text{mA}$	10		40	
$h_{FE(2)}$	$V_{CE}=10\text{V}$ $I_C=1.0\text{mA}$	15			
$h_{FE(3)}$	$V_{CE}=10\text{V}$ $I_C=1.0\text{A}$	6		40	
$V_{CE(sat) (1)}$	$I_C=0.5\text{A}$ $I_B=0.1\text{A}$			0.8	V
$V_{CE(sat) (2)}$	$I_C=1.5\text{A}$ $I_B=0.5\text{A}$			2.5	V
$V_{BE(sat)}$	$I_C=0.5\text{A}$ $I_B=0.1\text{A}$			1.2	V
f_T	$V_{CE}=10\text{V}$ $I_C=0.1\text{A}$ $f=1.0\text{MHz}$	5.0			MHz
t_f	$V_{CE}=5\text{V}$ $I_C=0.25\text{A}$			1.2	μs
t_s	(UI9600)			5.0	μs

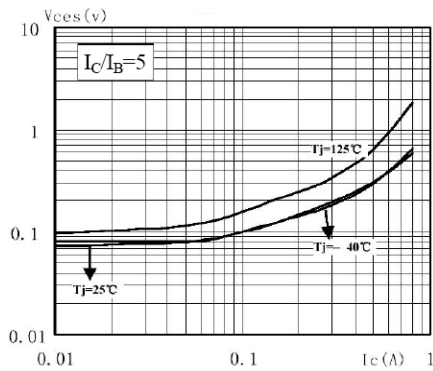
SOA (DC)



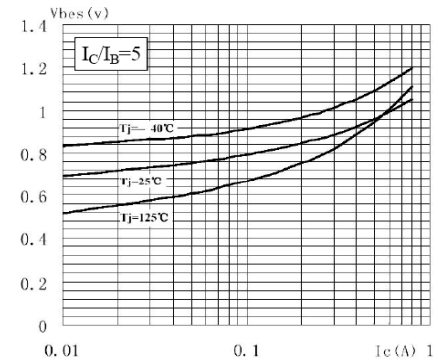
$P_c - T_c$



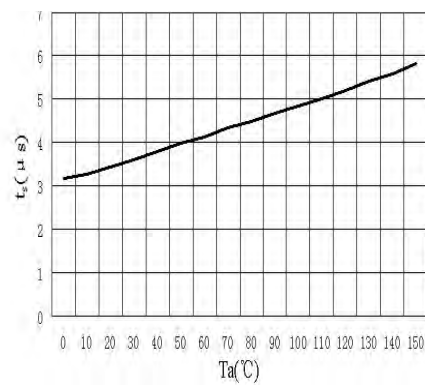
$V_{ces} - I_c$



$V_{bes} - I_c$



$t_s - T_a$



$h_{FE} - T_a$

