/ Descriptions

Silicon PNP transistor in a TO-92 Plastic Package.

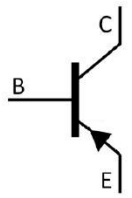
/ Features

High P_C, low $V_{CE(sat)}$, high current switching

/ Applications

Medium power switching and muting, linear regulators, LCD back-lighting, supply line switching circuits

/ Equivalent Circuit



/ Pinning

PIN1 Base PIN 2 Collector PIN 3 Emitter

/ hFE Classifications & Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

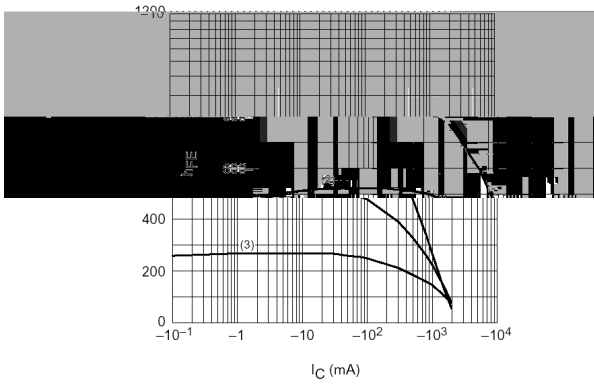
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-40	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current - Continuous	I_C	-1.0	A
Peak Collector Current	I_{CM}	-2.0	A
Peak Base Current	I_{BM}	-1.0	A
Collector Power Dissipation	P_C	830	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

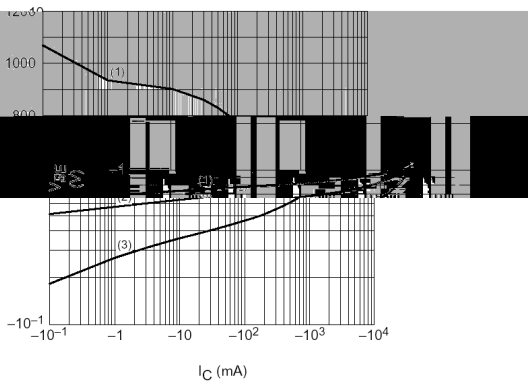
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-40V I_C=0			-0.1	A
Collector Cut-Off Current	I_{CEO}	V_{CE}=-30V I_B=0			-0.1	A
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-0.1	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=-5.0V I_C=-1.0mA	300			
	$h_{FE(2)}$	V_{CE}=-5.0V I_C=-100mA	300		800	
	$h_{FE(3)}$	V_{CE}=-5.0V I_C=-500mA	250			
	$h_{FE(4)}$	V_{CE}=-5.0V I_C=-1.0A	160			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	I_C=-100mA I_B=-1.0mA			-200	mV
	$V_{CE(sat)(2)}$	I_C=-500mA I_B=-50mA			-250	mV
	$V_{CE(sat)(3)}$	I_C=-1.0A I_B=-100mA			-500	mV
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-1.0A I_B=-50mA			-1.1	V
Base to Emitter Voltage	V_{BE}	V_{CE}=-5.0V I_C=-1.0A			-1.0	V
Transition Frequency	f_T	V_{CE}=-10V I_C=-50mA f=100MHz	150			MHz
Collector Capacitance	C_C	V_{CB}=-10V I_E=0 f=1MHz			12	pF

/ Electrical Characteristic Curve

hFE−Ic

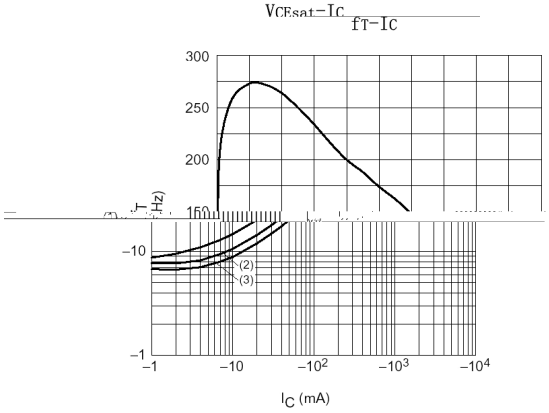


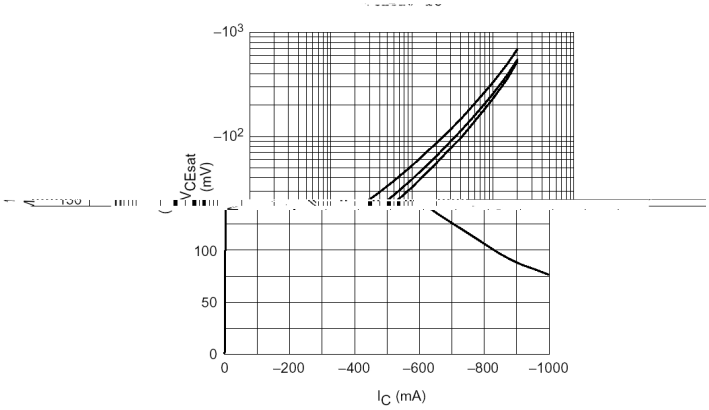
VBE−Ic



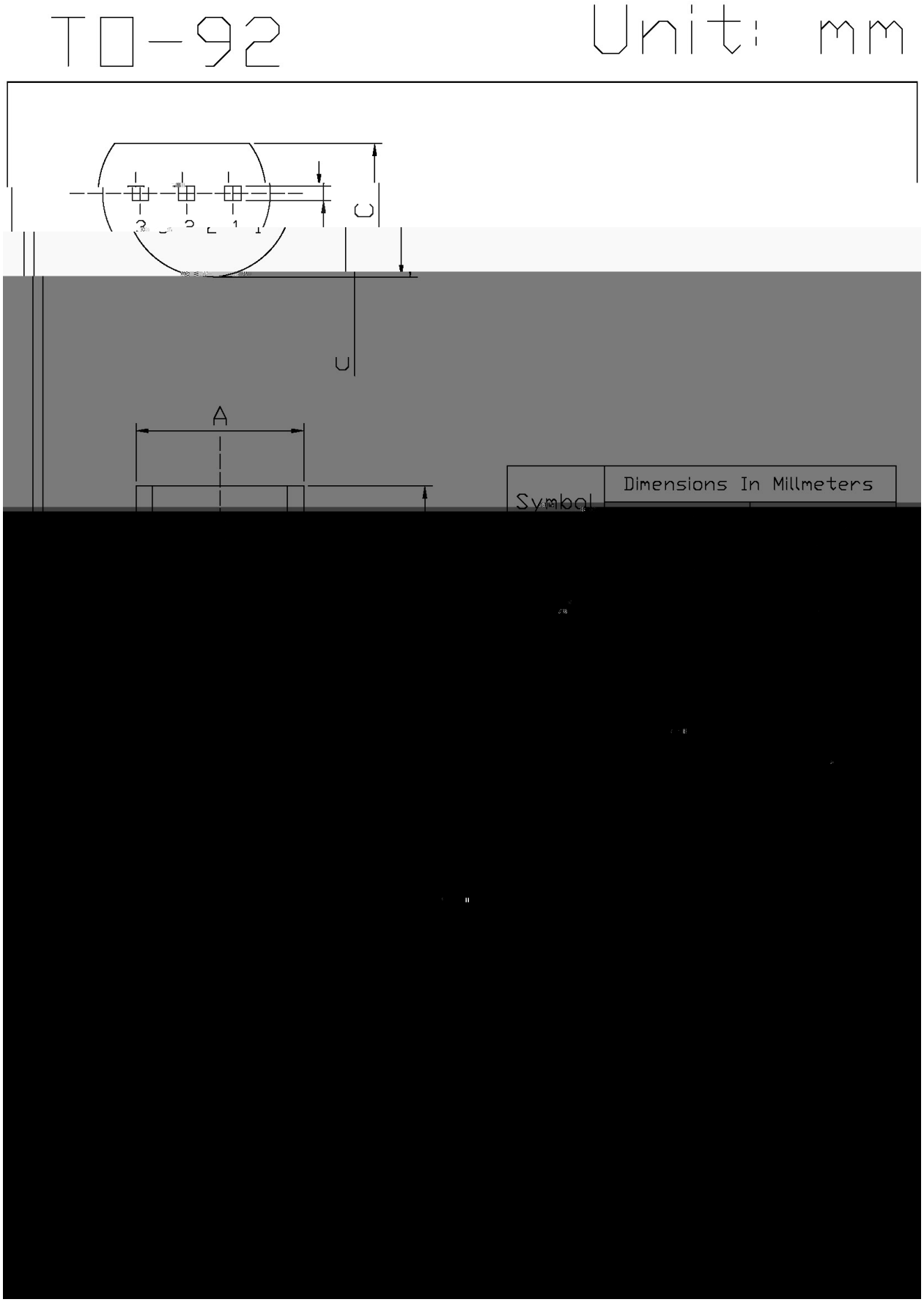
VCEsat−Ic

fT−Ic

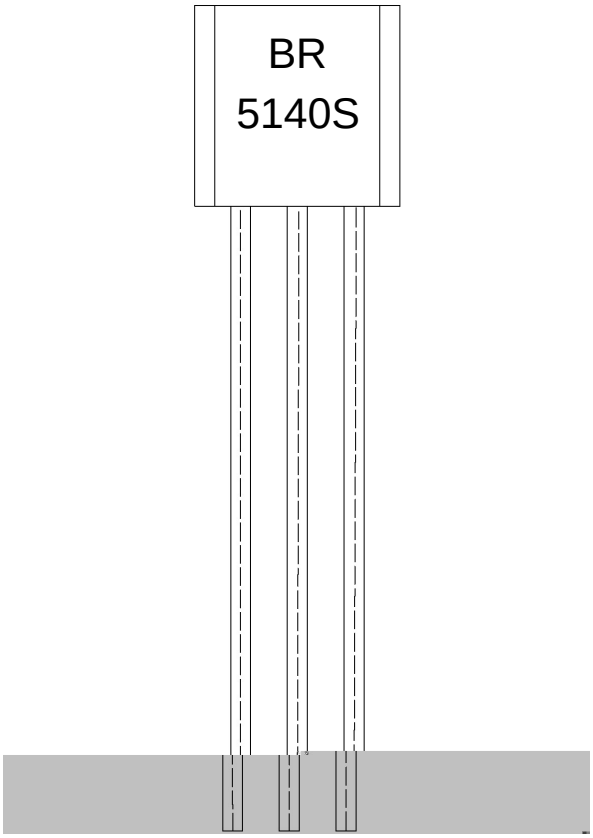




/ Package Dimensions



/ Marking Instructions



Note:

BR:	Company Code.
5140S:	Product Type.
****:	Lot No. Code,code change with Lot No.