

2SA2012

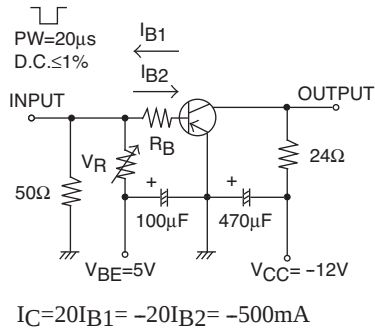
Continued from preceding page.

Parameter	Symbol	Conditions	Ratings	Unit
Base Current	I_B		-600	mA
Collector Dissipation	P_C	When mounted on ceramic substrate (250mm ² ×0.8mm)	1.3	W
		$T_C=25^{\circ}\text{C}$	3.5	W
Junction Temperature	T_J		150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics at $T_a=25^{\circ}\text{C}$

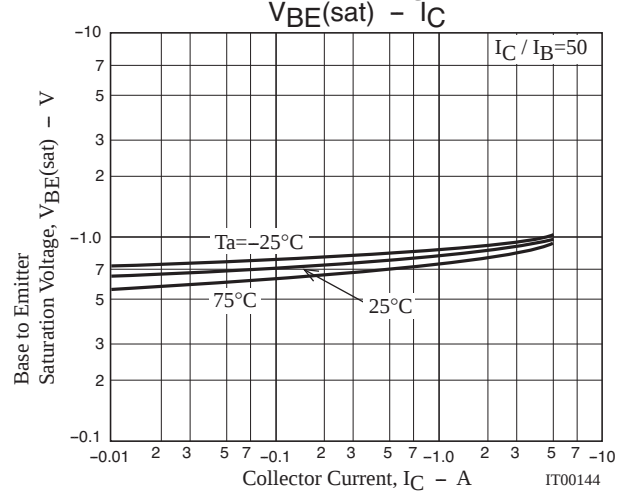
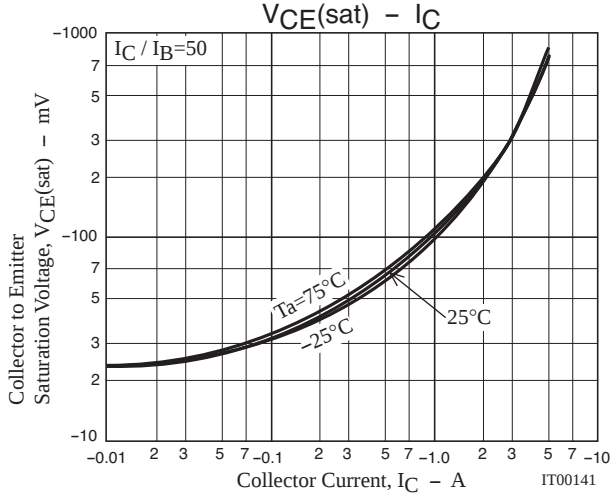
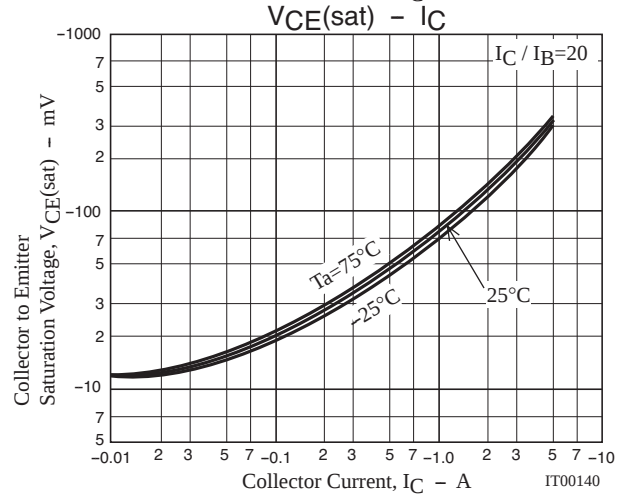
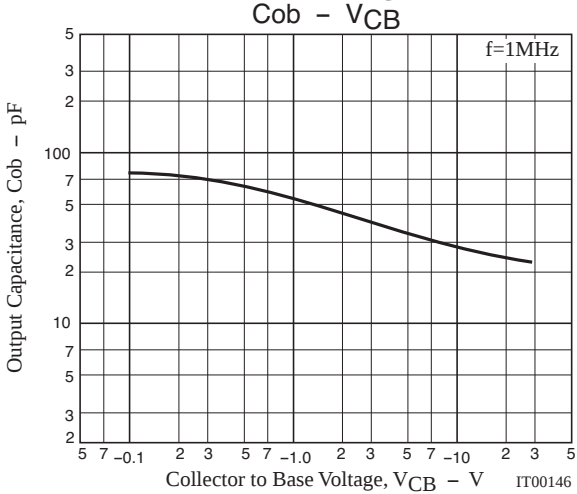
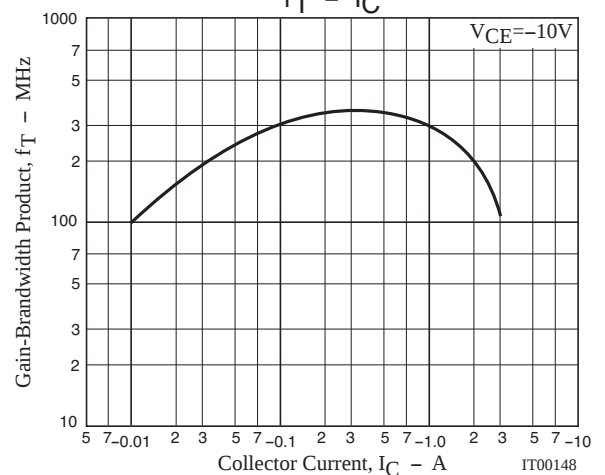
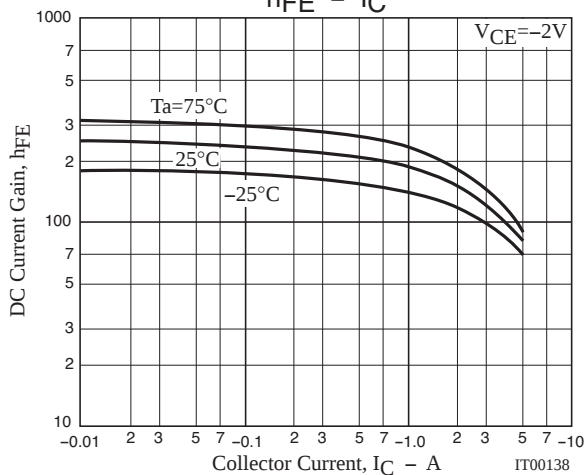
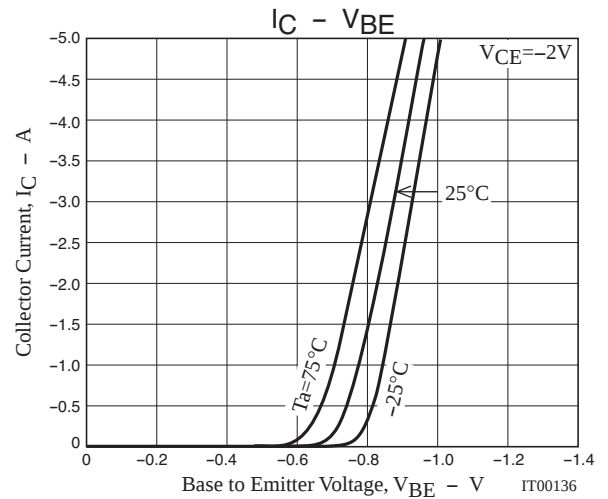
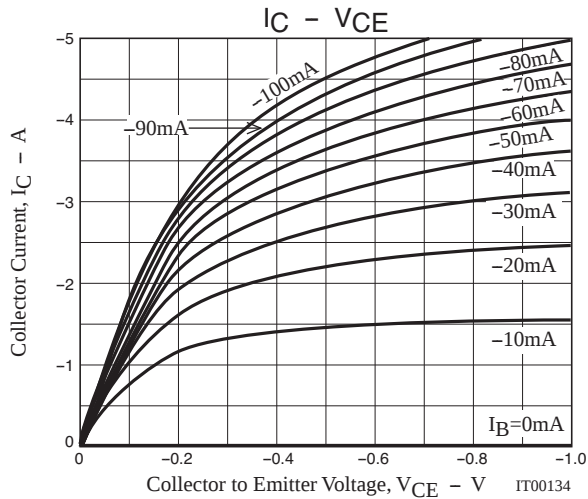
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-30\text{V}$, $I_E=0\text{A}$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-4\text{V}$, $I_C=0\text{A}$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=-2\text{V}$, $I_C=-500\text{mA}$	200		560	
Gain-Bandwidth Product	f_T	$V_{CE}=-10\text{V}$, $I_C=-500\text{mA}$		350		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10\text{V}$, $f=1\text{MHz}$		30		pF
Collector to Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=-1.5\text{A}$, $I_B=-30\text{mA}$		-140	-210	mV
	$V_{CE(sat)2}$	$I_C=-2.5\text{A}$, $I_B=-125\text{mA}$		-170	-260	mV
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-1.5\text{A}$, $I_B=-30\text{mA}$		-0.83	-1.2	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}$, $I_E=0\text{A}$	-30			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$, $R_{BE}=\infty$	-30			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}$, $I_C=0\text{A}$	-5			V
Turn-ON Time	t_{on}	See specified Test Circuit.		50		ns
Storage Time	t_{stg}			270		ns
Fall Time	t_f			25		ns

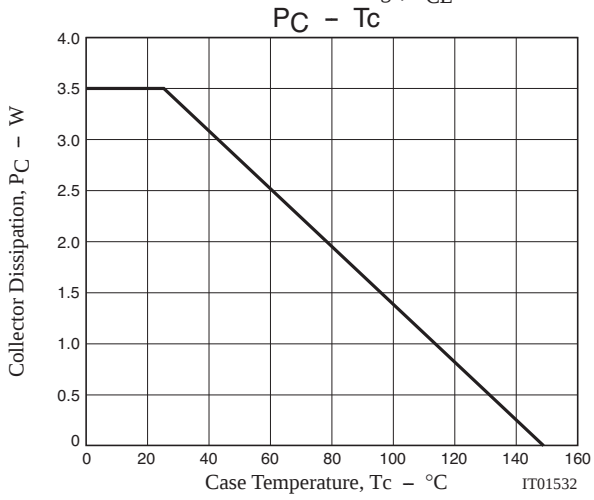
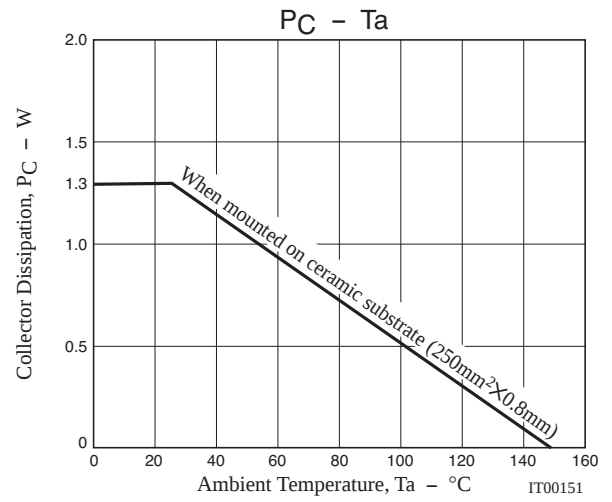
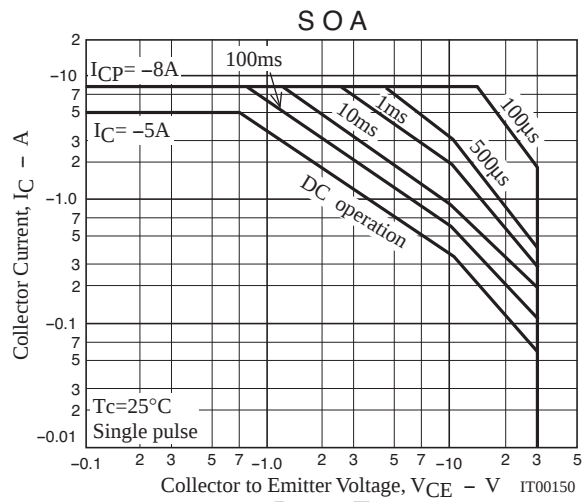
Switching Time Test Circuit



Ordering Information

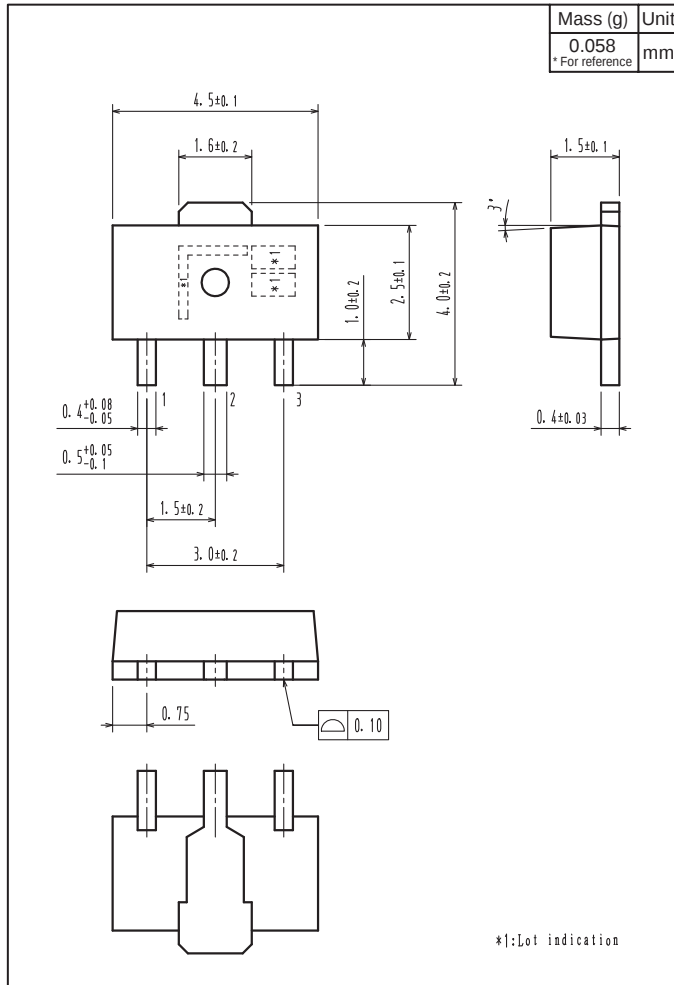
Device	Package	Shipping	memo
2SA2012-TD-E	PCP	1,000pcs./reel	Pb Free



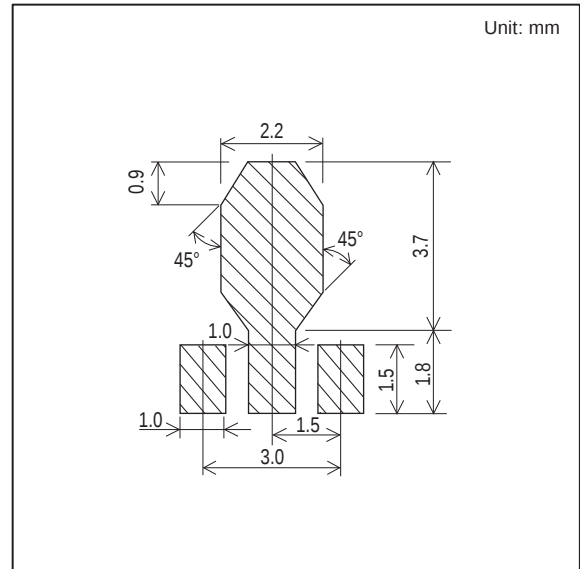


Outline Drawing

2SA2012-TD-E



Land Pattern Example



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