



# 2SC6089 — NPN Triple Diffused Planar Silicon Transistor

## Color TV Horizontal Deflection Output Applications

### Features

- High speed.
- High breakdown voltage ( $V_{CBO}=1500V$ ).
- Adoption of high reliability HVP process.
- Adoption of MBIT process.

### Specifications

**Absolute Maximum Ratings** at  $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		1500	V
Collector-to-Emitter Voltage	$V_{CEO}$		700	V
Emitter-to-Base Voltage	$V_{EBO}$		5	V
Collector Current	$I_C$		10	A
Collector Current (Pulse)	$I_{CP}$		25	A
Collector Dissipation	$P_C$		3.0	W
		$T_c=25^\circ C$	80	W
Junction Temperature	$T_j$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

**Electrical Characteristics** at  $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=800V, I_E=0A$			10	$\mu A$
Collector Cutoff Current	$I_{CES}$	$V_{CE}=1500V, R_{BE}=0\Omega$			1.0	mA
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100mA, I_B=0A$	700			V
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4V, I_C=0A$			1.0	mA

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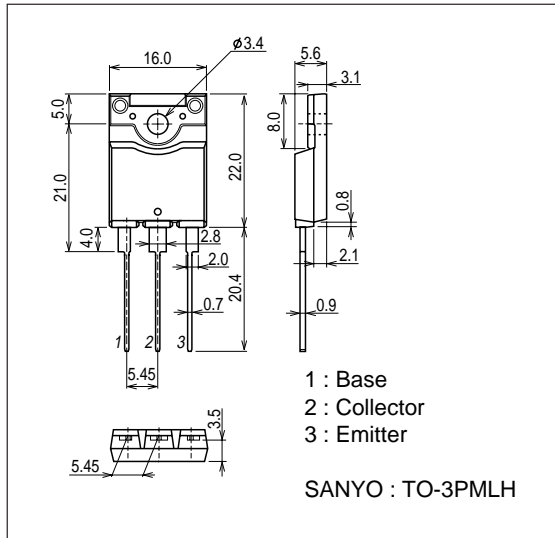
# 2SC6089

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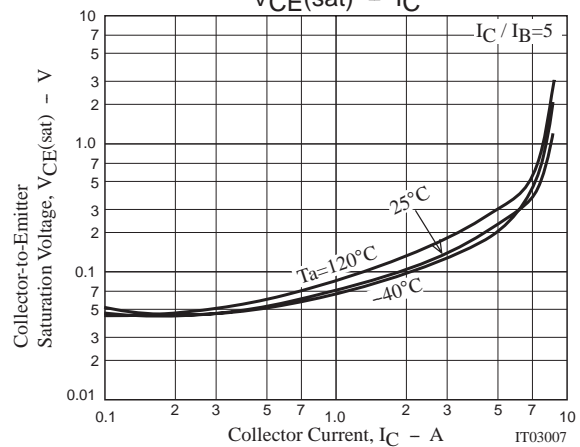
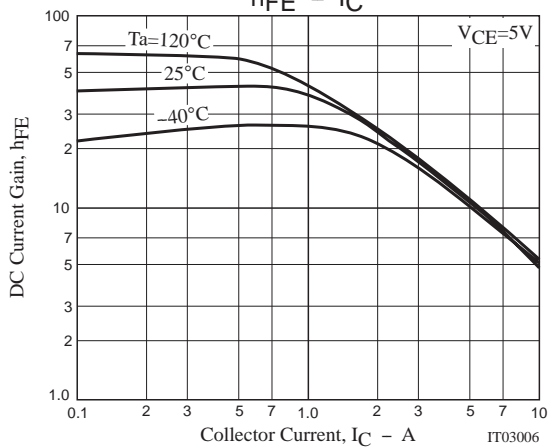
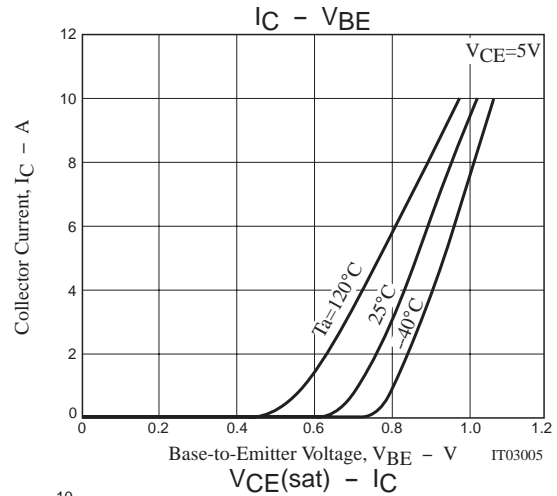
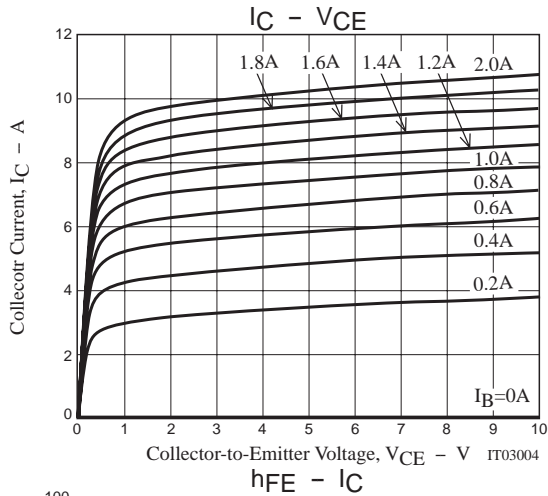
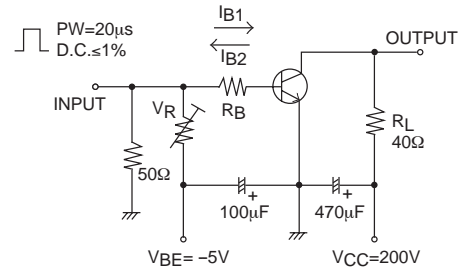
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=7.2A, I_B=1.44A$			3	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=7.2A, I_B=1.44A$			1.5	V
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=1A$	15			
	$h_{FE2}$	$V_{CE}=5V, I_C=8A$	5		7	
Fall Time	$t_f$	$I_C=5A, I_{B1}=1A, I_{B2}=-2A$			0.2	$\mu s$

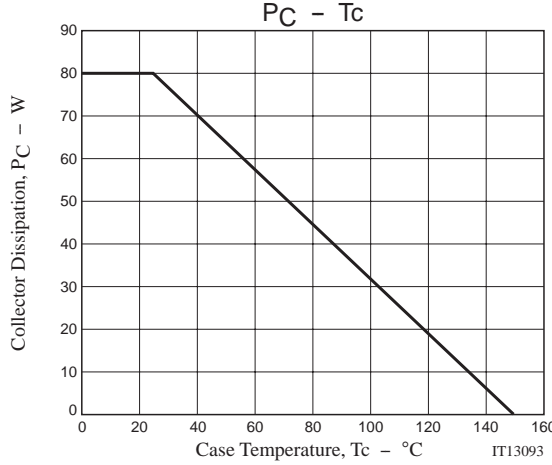
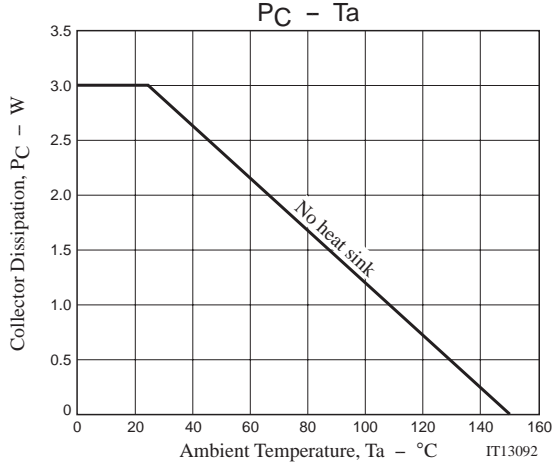
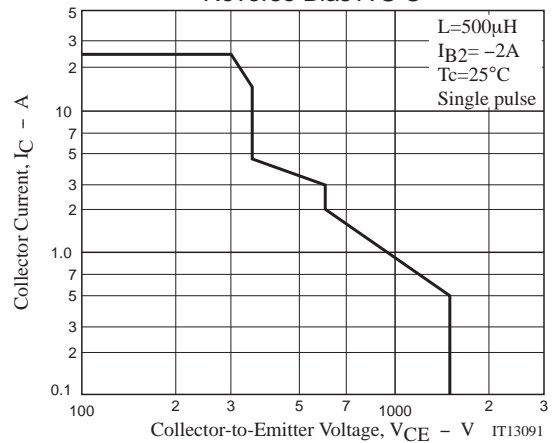
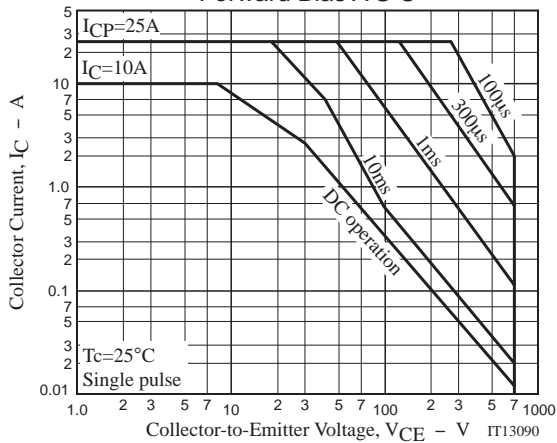
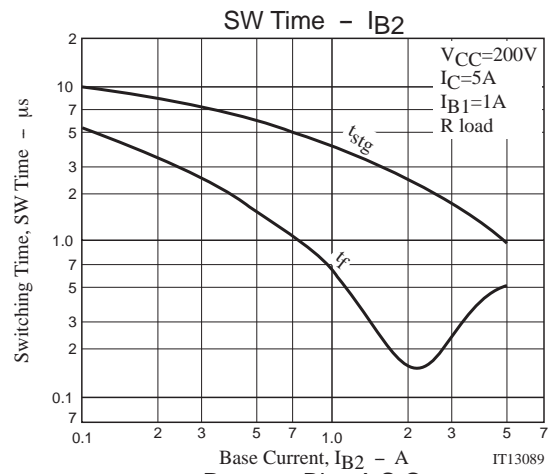
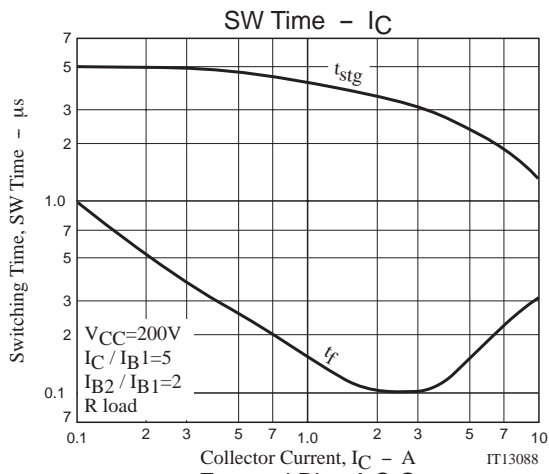
## Package Dimensions

unit : mm (typ)  
7504-001



## Switching Time Test Circuit





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