



ON Semiconductor®

**ON Semiconductor  
DATA SHEET****2SA1479 / 2SC3789 — PNP / NPN Epitaxial Planar Silicon Transistors  
High-Definition CRT Display  
Video Output Applications****Applications**

- High-definition CRT display.
- Color TV chroma output, high breakdown voltage drivers.

**Features**

- High breakdown voltage :  $V_{CEO} \geq 300V$ .
- Excellent high frequency characteristic :  $C_{re} = 1.8pF$  (typ).
- Adoption of MBIT process.
- No insulator required for mounting, which contributes to reducing the cost and the number of manufacturing processes.
- Plastic-covered heat sink facilitating high-density mounting.
- Directly interchangeable with TO-126 because the package is designed based on the conventional package dimensions.

**Specifications ( ) : 2SA1479****Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		(-)300	V
Collector-to-Emitter Voltage	$V_{CEO}$		(-)300	V
Emitter-to-Base Voltage	$V_{EBO}$		(-)5	V
Collector Current	$I_C$		(-)100	mA
Collector Current (Pulse)	$I_{CP}$		(-)200	mA
Collector Dissipation	$P_C$		1.5	W
		$T_c = 25^\circ C$	7	W
Junction Temperature	$T_j$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

# 2SA1479 / 2SC3789

## Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=(-)200V, I_E=0A$			(-)0.1	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=(-)4V, I_C=0A$			(-)0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=(-)10V, I_C=(-)10mA$	40*		320*	
Gain-Bandwidth Product	$f_T$	$V_{CE}=(-)30V, I_C=(-)10mA$		70		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)20mA, I_B=(-)2mA$			(-)0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)20mA, I_B=(-)2mA$			(-)1.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0A$	(-)300			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-)300			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0A$	(-)5			V
Output Capacitance	$C_{ob}$	$V_{CB}=(-)30V, f=1MHz$		(3.1)2.6		pF
Reverse Transfer Capacitance	$C_{re}$	$V_{CB}=(-)30V, f=1MHz$		(2.3)1.8		pF

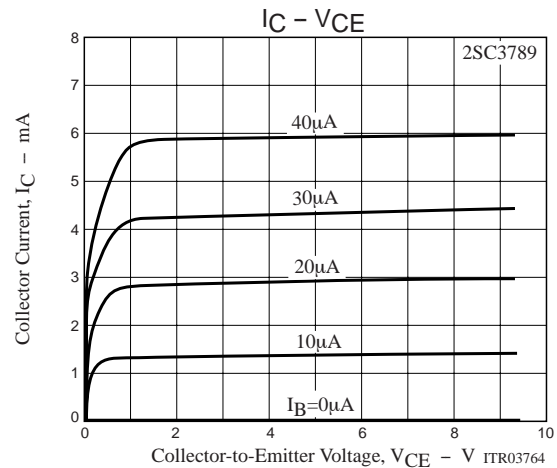
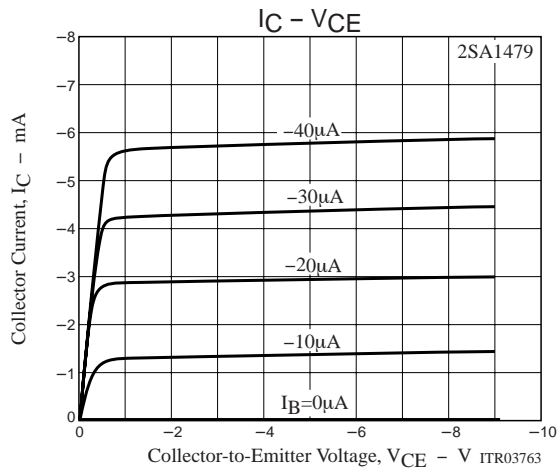
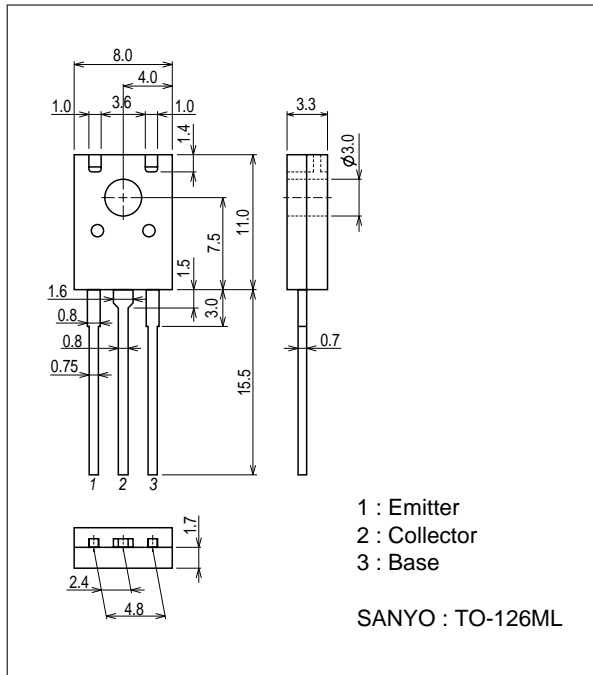
\* : The 2SA1479 / 2SC3789 are classified by 10mA  $h_{FE}$  as follows:

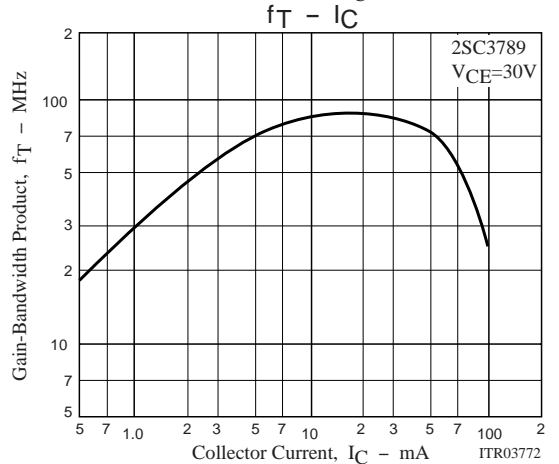
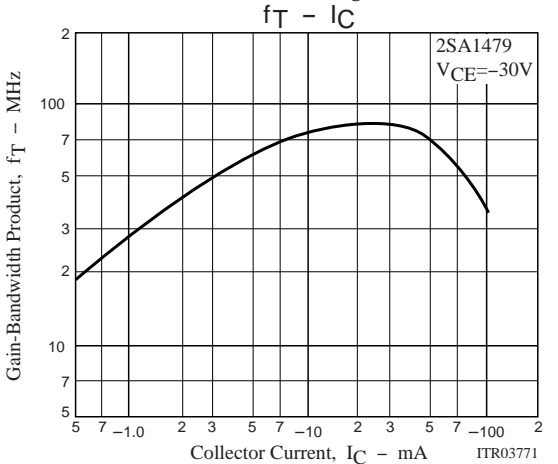
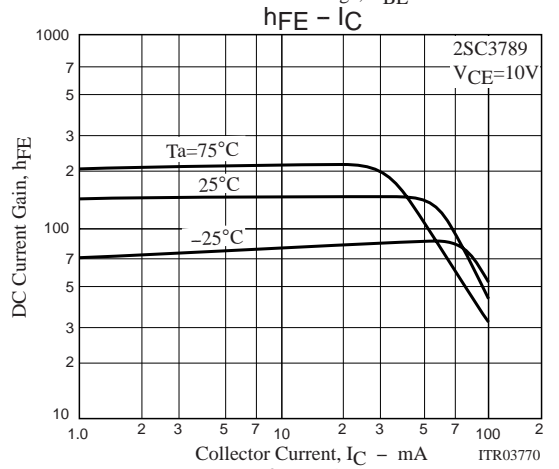
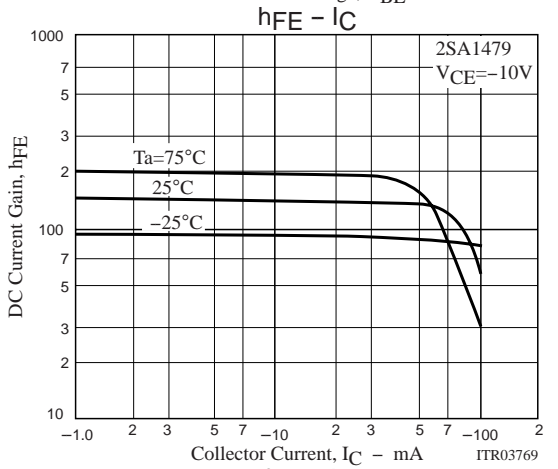
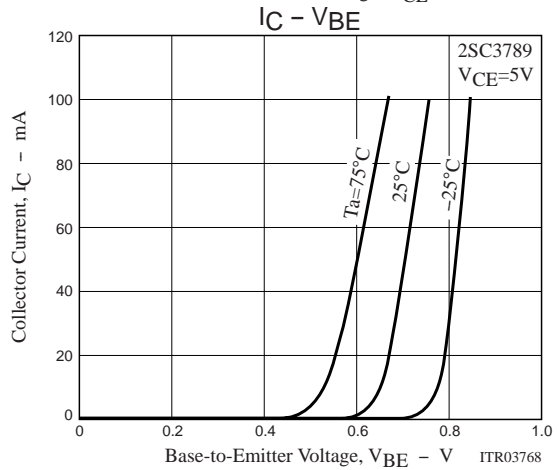
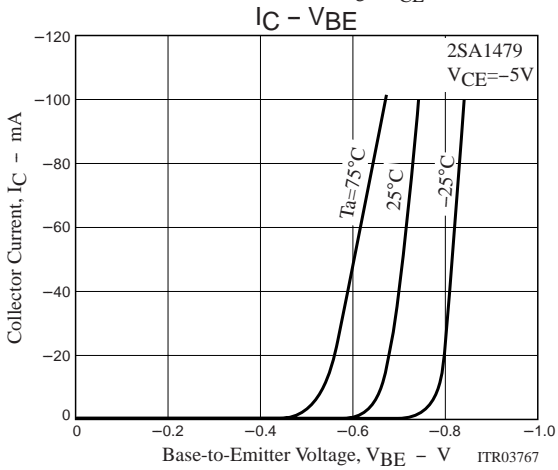
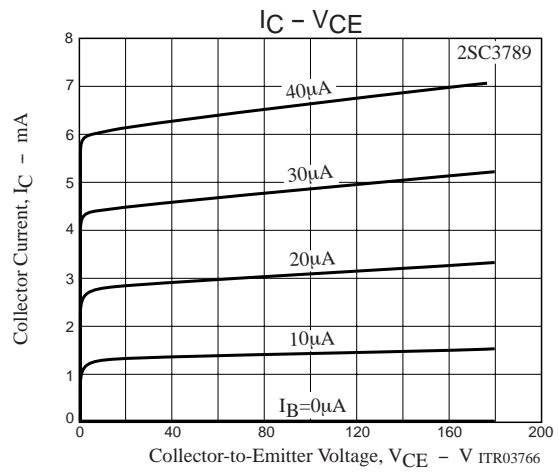
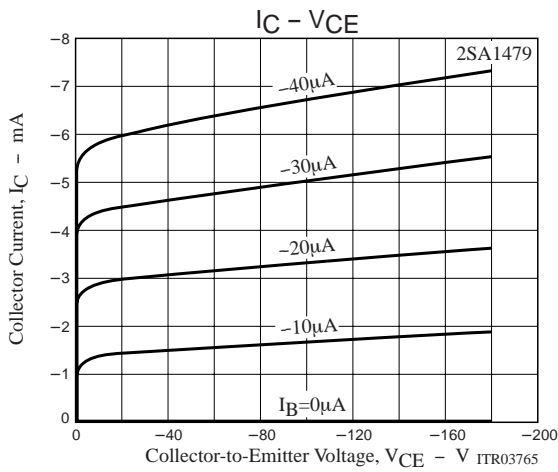
Rank	C	D	E	F
$h_{FE}$	40 to 80	60 to 120	100 to 200	160 to 320

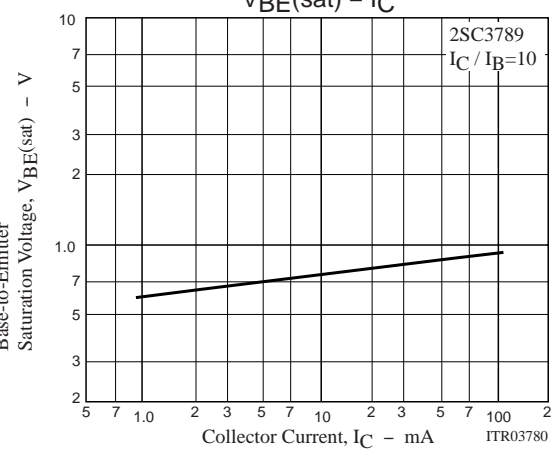
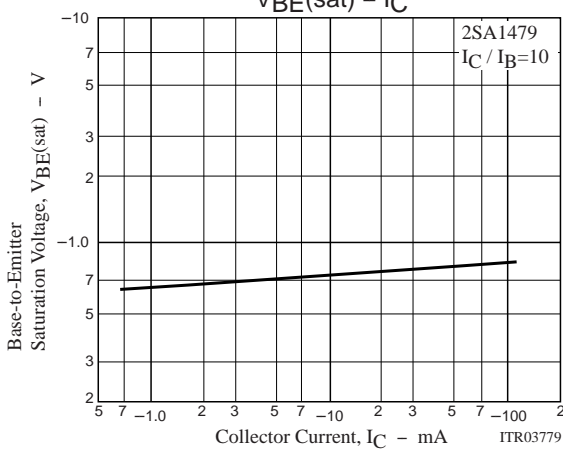
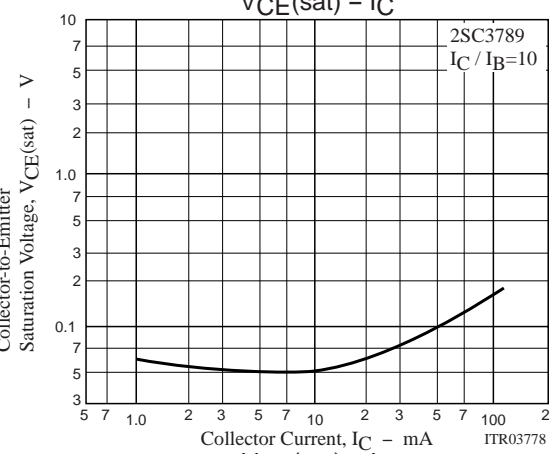
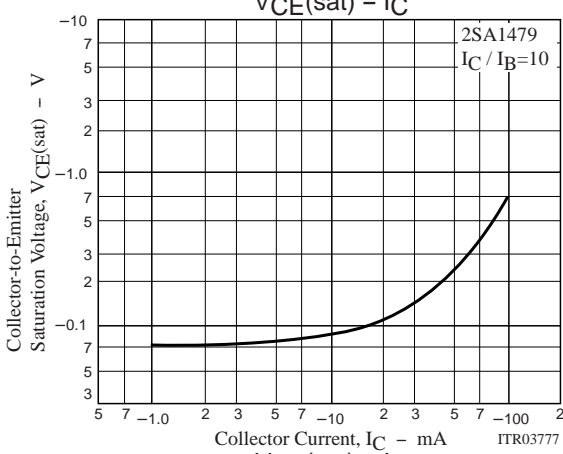
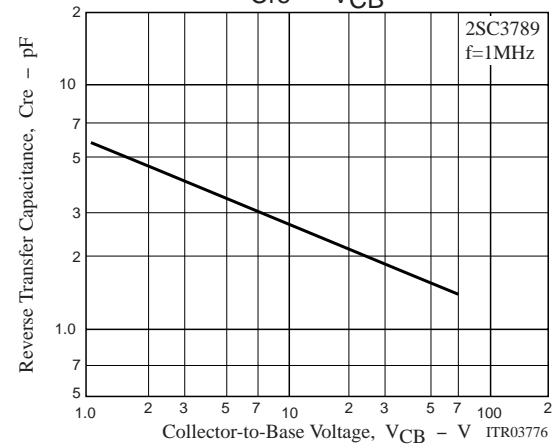
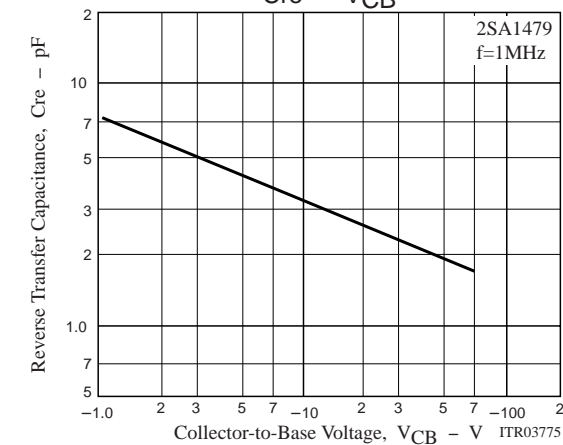
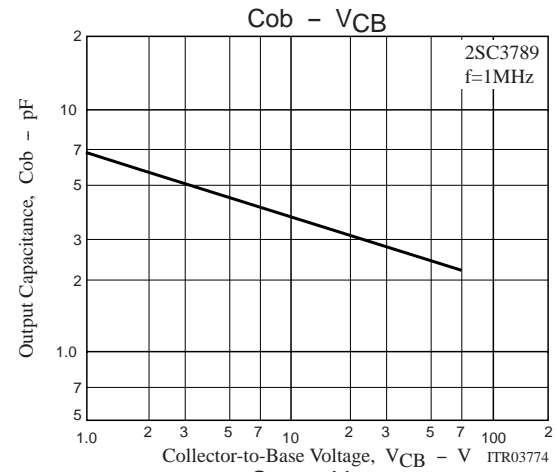
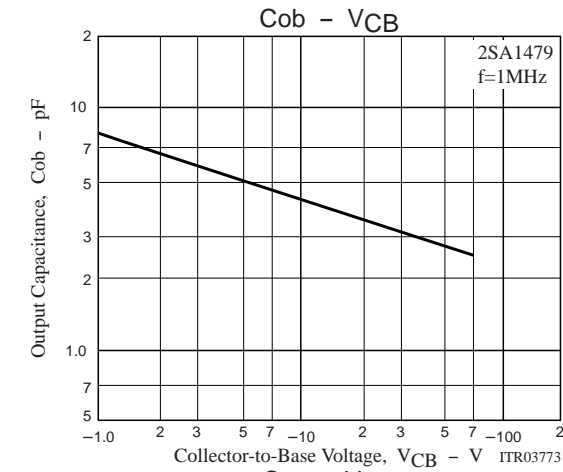
## Package Dimensions

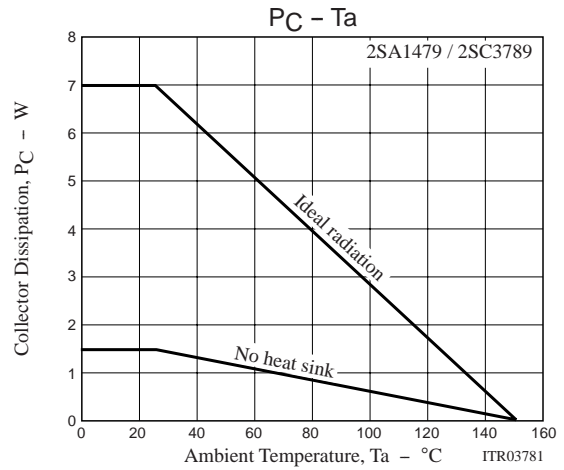
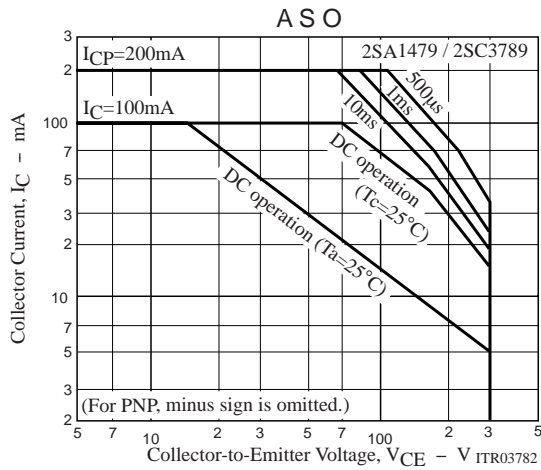
unit : mm (typ)

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