

<b>SANYO</b>	No.4717	<h1 style="margin: 0;">2SA1853/2SC4827</h1> <p style="margin: 0;">PNP/NPN Epitaxial Planar Silicon Transistors</p> <p style="margin: 0;">High-Definition CRT Display Video Output Applications</p>
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**Applications**

- High-definition CRT display video output. Wide-band amp.

**Features**

- Adoption of FBET process.
- High  $f_T$ :  $f_T = 300\text{MHz}$ .
- High breakdown voltage:  $V_{CEO} = 200\text{V}$ .
- Small reverse transfer capacitance and excellent high-frequency characteristic:  $C_{re} = 2.2\text{pF/NPN}$ ,  $2.7\text{pF/PNP}$ .
- Possible to offer the 2SA1853/2SC4827 devices in a tape reel packaging, which facilitates automatic insertion.

(-): PNP

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

			unit
Collector-to-Base Voltage	$V_{CB0}$	(-) $200$	V
Collector-to-Emitter Voltage	$V_{CE0}$	(-) $200$	V
Emitter-to-Base Voltage	$V_{EB0}$	(-) $3$	V
Collector Current	$I_C$	(-) $200$	mA
Collector Current(Pulse)	$I_{CP}$	(-) $300$	mA
Collector Dissipation	$P_C$	$1.3$	W
Junction Temperature	$T_j$	$150$	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	$-55$ to $+150$	$^\circ\text{C}$

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

			min	typ	max	unit
Collector Cutoff Current	$I_{CB0}$	$V_{CB} = (-)150\text{V}, I_E = 0$			(-) $0.1$	$\mu\text{A}$
Emitter Cutoff Current	$I_{EB0}$	$V_{EB} = (-)2\text{V}, I_C = 0$			(-) $1.0$	$\mu\text{A}$
DC Current Gain	$h_{FE(1)}$	$V_{CE} = (-)10\text{V}, I_C = (-)10\text{mA}$	$60^*$		$320^*$	
		$V_{CE} = (-)10\text{V}, I_C = (-)100\text{mA}$	$20$			
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)30\text{V}, I_C = (-)50\text{mA}$		$300$		MHz
		$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		$2.7$		pF
Output Capacitance	$C_{ob}$			$(3.2)$		pF
				$2.2$		pF
Reverse Transfer Capacitance	$C_{re}$	$V_{CB} = (-)30\text{V}, f = 1\text{MHz}$		$(2.7)$		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)30\text{mA}, I_B = (-)3\text{mA}$			(-) $1.0$	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)30\text{mA}, I_B = (-)3\text{mA}$			(-) $1.0$	V

\*: The 2SA1853/2SC4827 are classified by 10mA  $h_{FE}$  as follows:

60 D 120	100 E 200	160 F 320
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**Package Dimensions 2084B**

(unit: mm)





