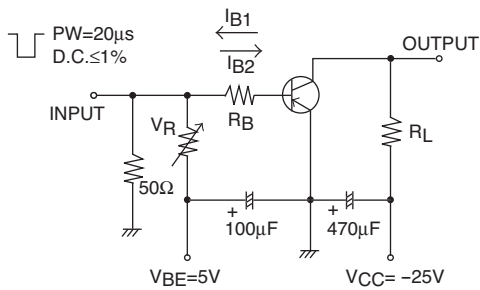


CPH3123/CPH3223

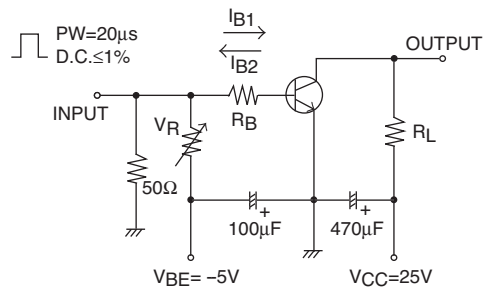
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)40V, I_E=0A$			$(-)1$	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0A$			$(-)1$	μA
DC Current Gain	h_{FE}	$V_{CE}=(-)2V, I_C=(-)100mA$	200		560	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)500mA$		(390)380		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(24)13		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)1}$	$I_C=(-)1A, I_B=(-)50mA$		$(-115)90$	$(-230)130$	mV
	$V_{CE(sat)2}$	$I_C=(-)2A, I_B=(-)100mA$		$(-240)160$	$(-650)240$	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)2A, I_B=(-)100mA$		$(-)0.88$	$(-)1.2$	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0A$	$(-50)100$			V
Collector-to-Base Breakdown Voltage	$V_{(BR)CES}$	$I_C=(-)100\mu A, R_{BE}=0\Omega$	$(-50)100$			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	$(-)50$			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0A$	$(-)6$			V
Turn-On Time	t_{on}	See specified Test Circuit.		(30)35		ns
Storage Time	t_{stg}			(230)300		ns
Fall Time	t_f			(18)25		ns

Switching Time Test Circuit



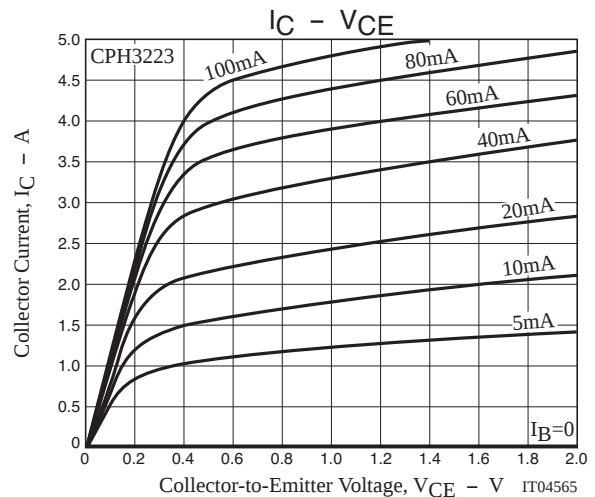
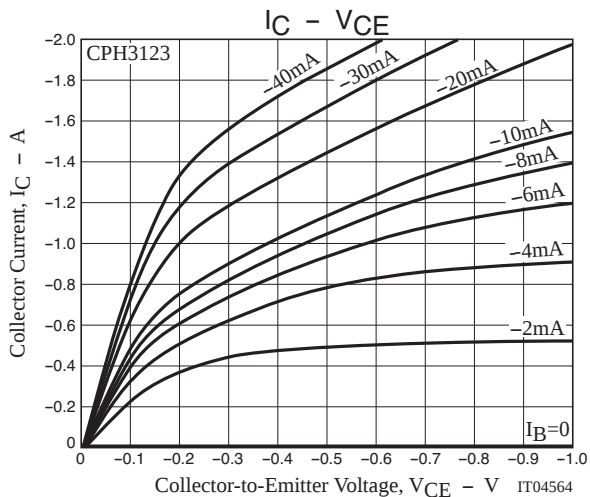
$I_C = -10I_{B1} = 10I_{B2} = -1A$
CPH3123

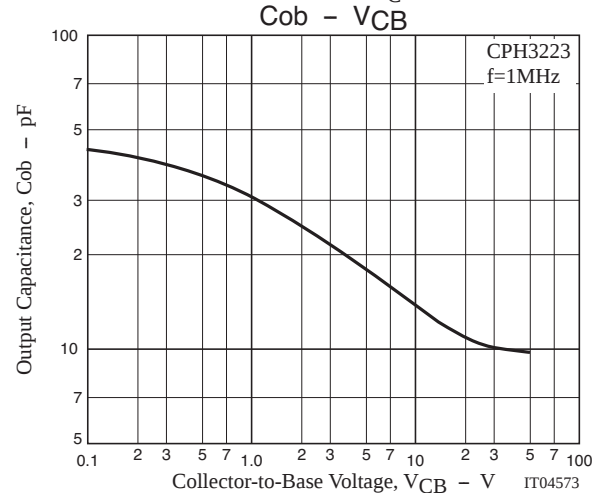
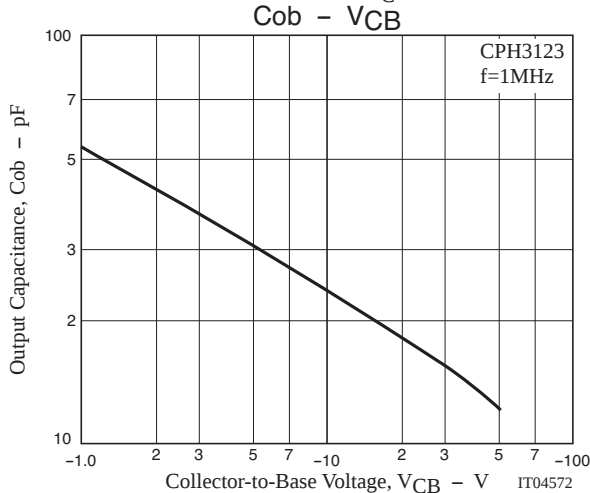
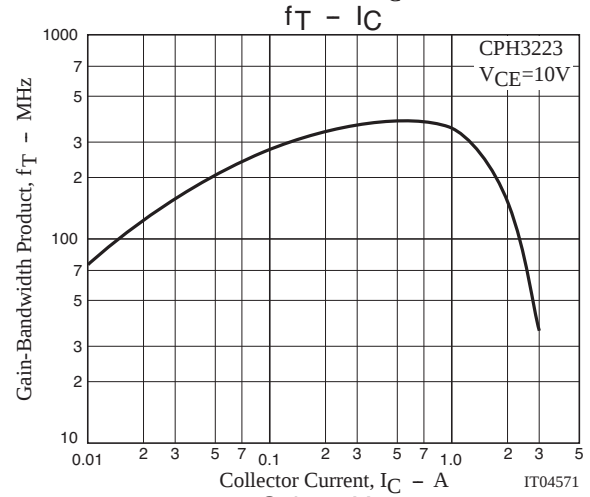
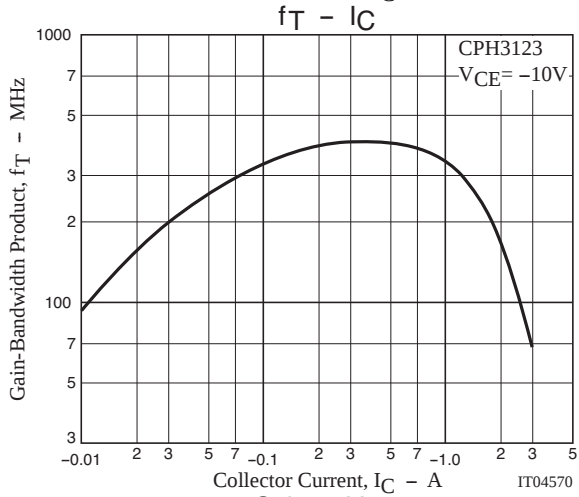
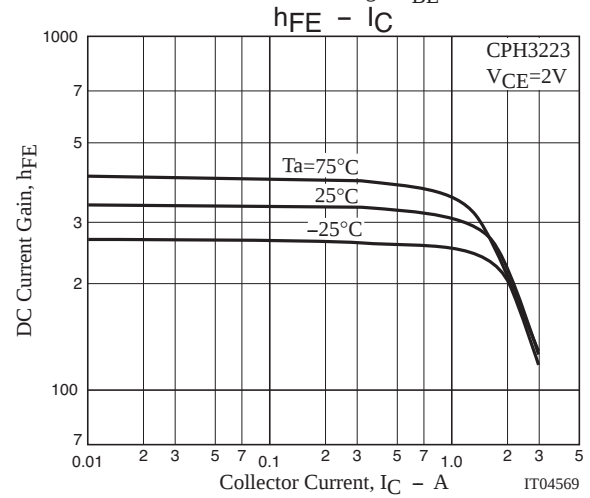
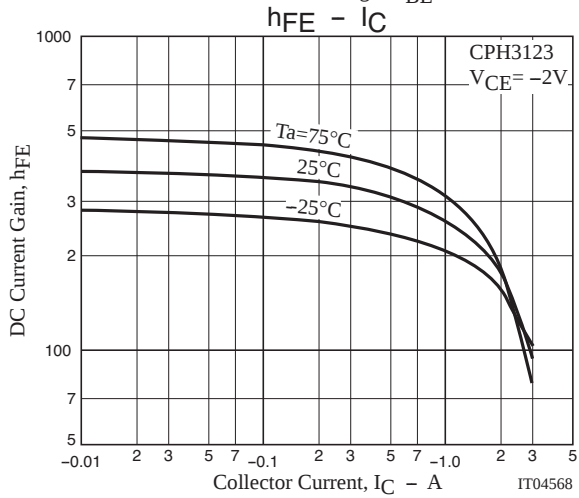
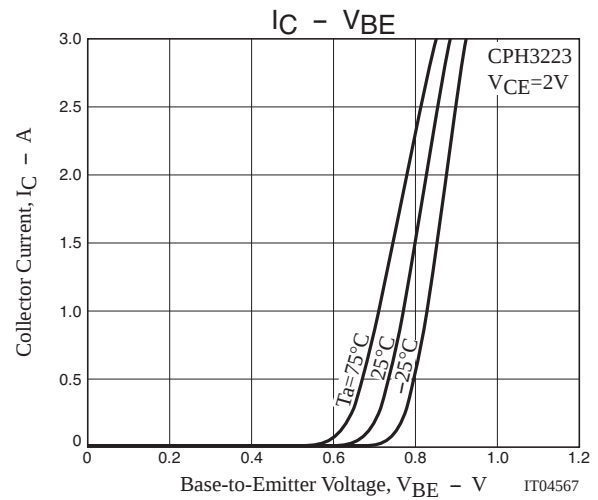
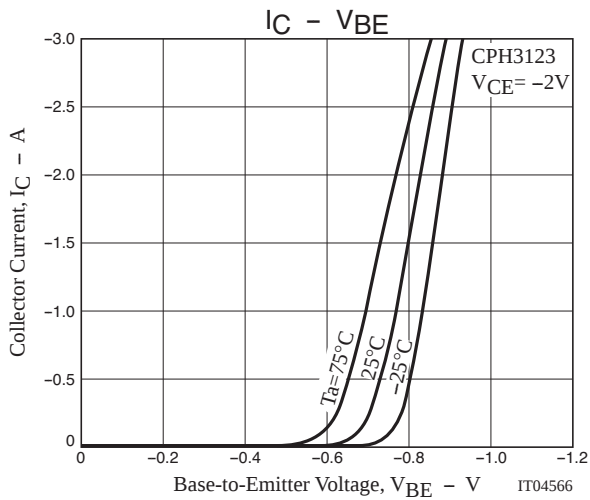


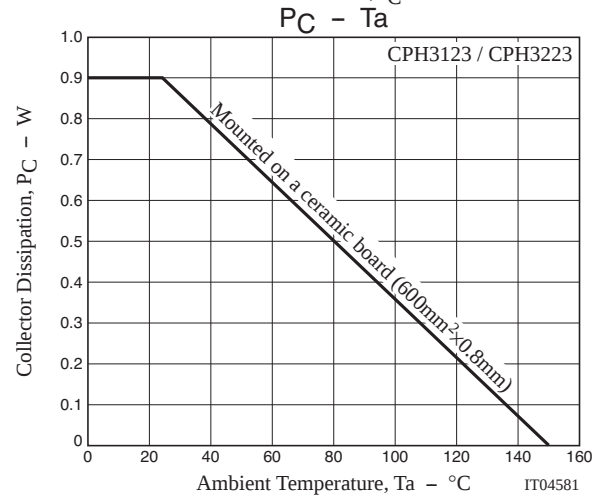
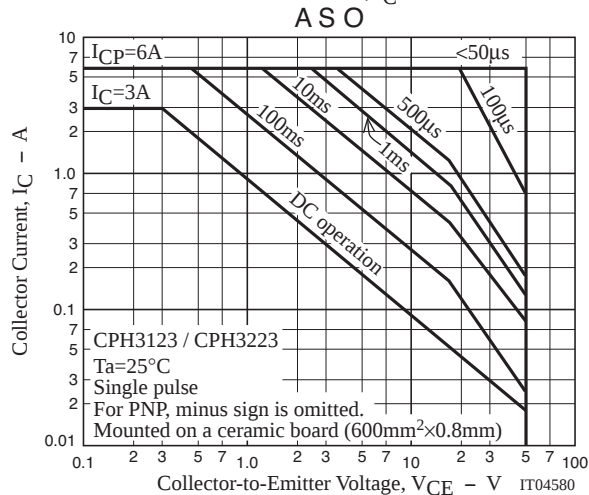
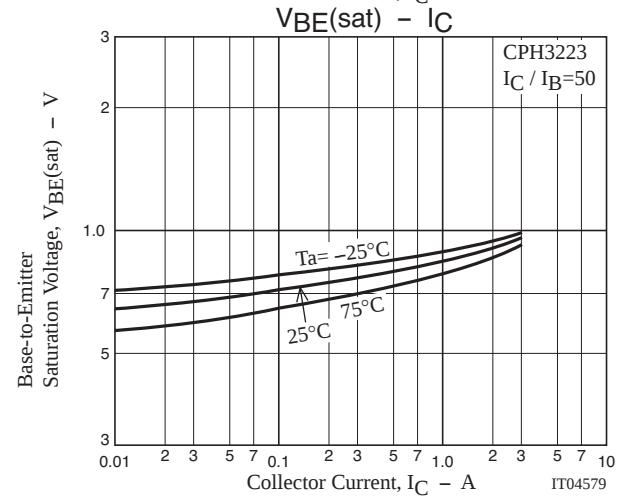
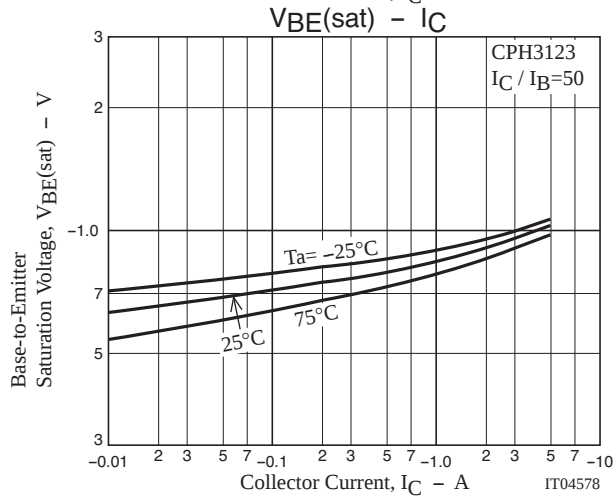
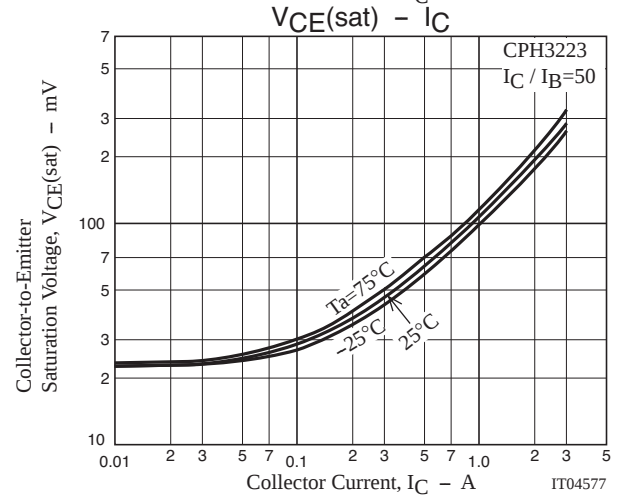
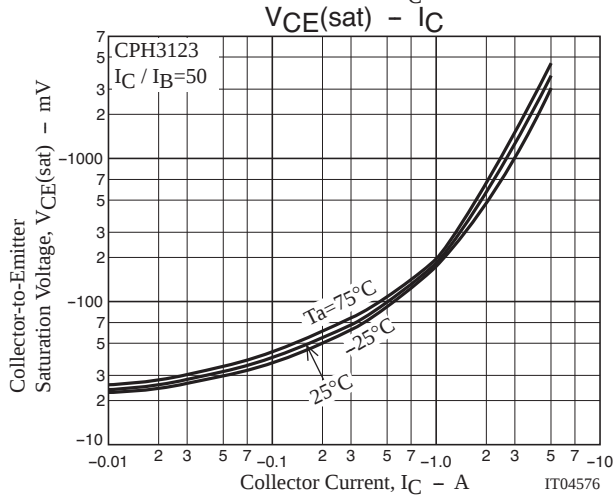
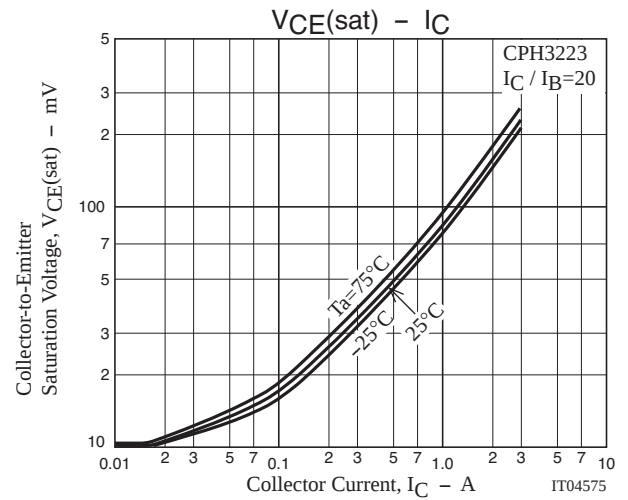
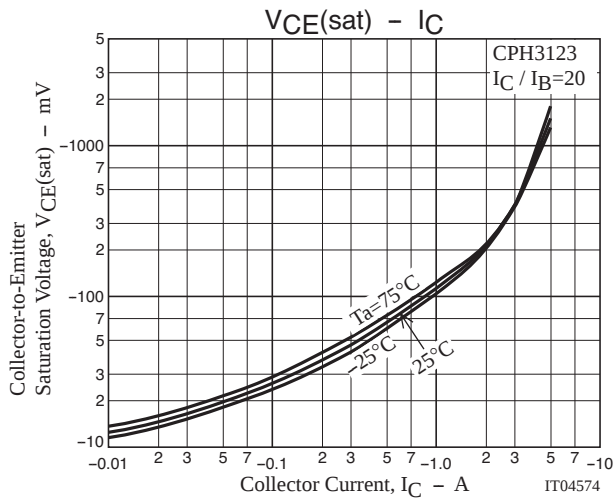
$I_C = 10I_{B1} = -10I_{B2} = 1A$
CPH3223

Ordering Information

Device	Package	Shipping	memo
CPH3123-TL-E	CPH3	3,000pcs./reel	Pb Free
CPH3223-TL-E	CPH3	3,000pcs./reel	Pb Free







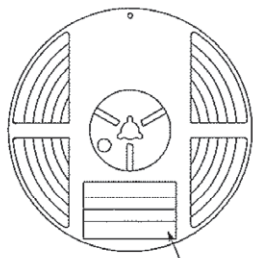
Embossed Taping Specification

CPH3123-TL-E, CPH3223-TL-E

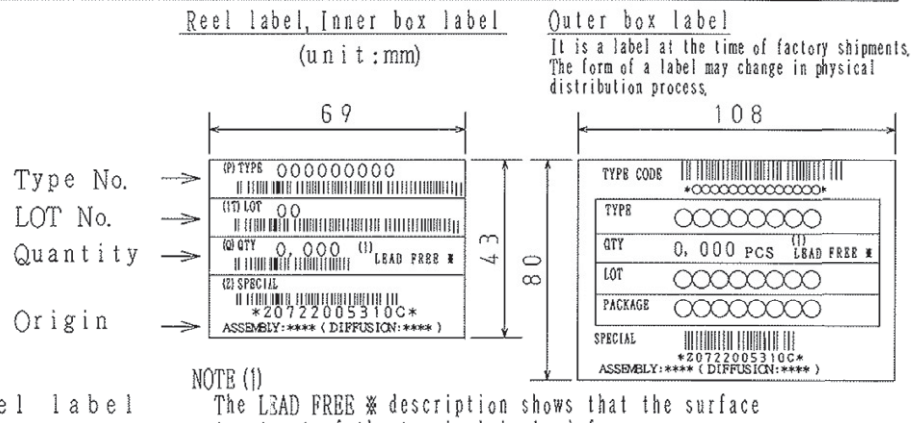
1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
CPH3	CPH3	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Packing method



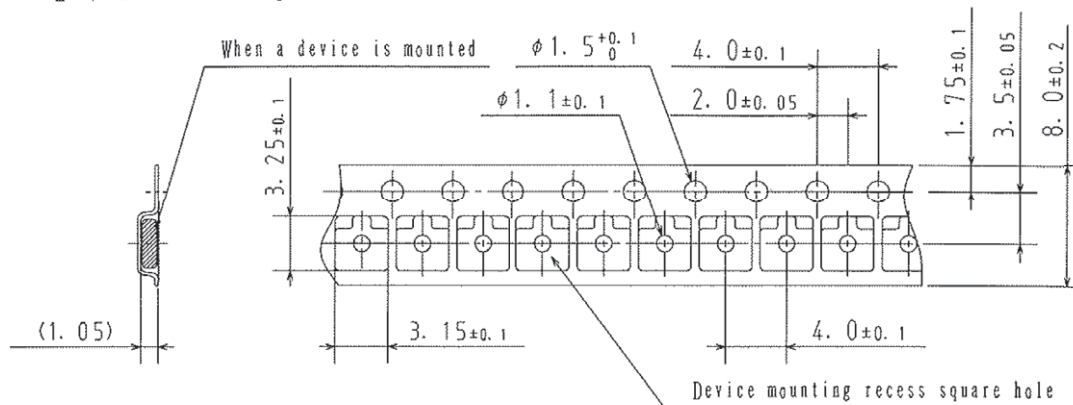
Reel label



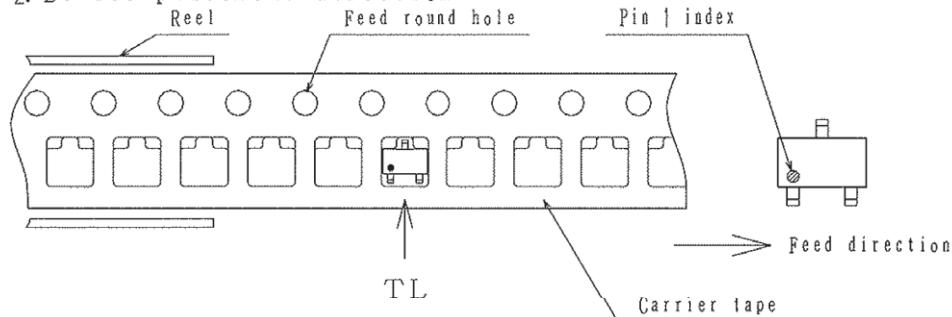
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



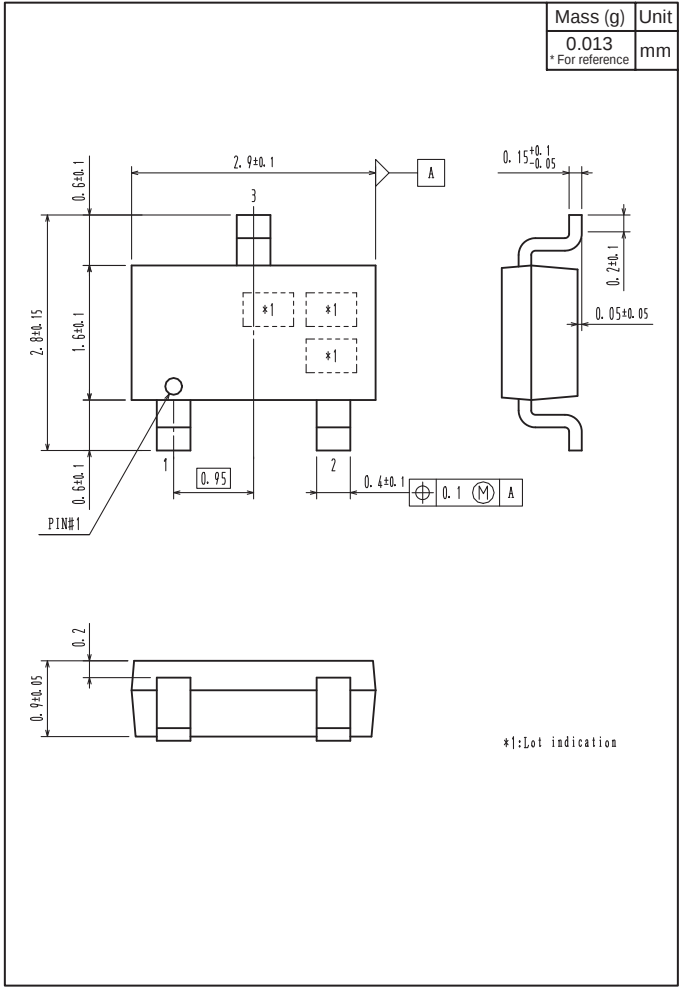
2-2. Device placement direction



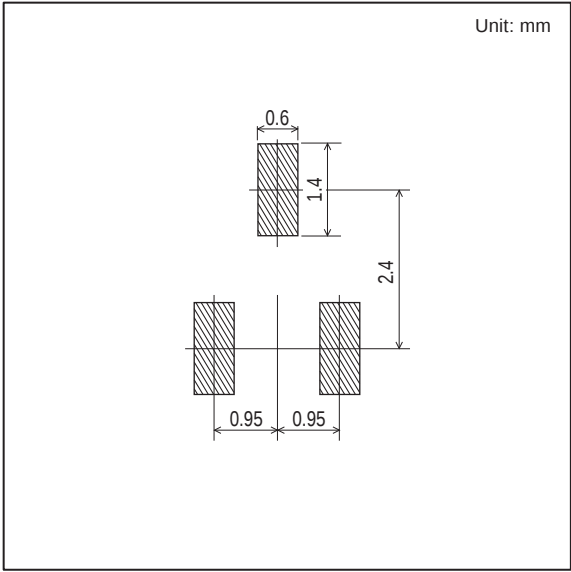
Those with one electrode terminal on the feed hole side.....TL

Outline Drawing

CPH3123-TL-E, CPH3223-TL-E



Land Pattern Example



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