

ABSOLUTE MAXIMUM RATINGS¹ (TA = 25°C)

	SYMBOLS	PARAMETERS	UNITS	RATINGS
OCMOS	Diode			
	IF	Forward Current (DC)	mA	50
	VR	Reverse Voltage	V	5.0
	PD	Power Dissipation	mW/ch	50
	IFP	Peak Forward Current ²	A	1.0
	MOSFET			
	VL	Break Down Voltage	V	400
	IL	Continuous Load Current	mA	120
	ILP	Pulse Load Current ³ (AC/DC Connection)	mA	250
	PD	Power Dissipation	mW	430
Photocoupler	Diode			
	IF	Forward Current	mA	50
	VR	Reverse Voltage ⁴	V	5.0
	PD	Power Dissipation	mW/ch	50
	IFP	Peak Forward Current ²	A	1.0
	Transistor			
	VCEO	Collector to Emitter Voltage	V	40
	VECO	Emitter to Collector Voltage	V	6.0
	IC	Collector Current	mA	80
	PC	Power Dissipation	mW	100
	BV	Isolation Voltage ⁵	Vr.m.s.	1500
	PT	Total Power Dissipation	mW	630
	TA	Operating Ambient Temp.	°C	-40 to 80
	TSTG	Storage Temperature	°C	-40 to 100

RECOMMENDED OPERATING CONDITIONS (TA = 25°C)

SYMBOLS	PARAMETERS	UNITS	MIN	TYP	MAX
OCMOS FET					
IF	LED Operating Current	mA	2	10	20
VF	LED Off Voltage	V	0		0.5

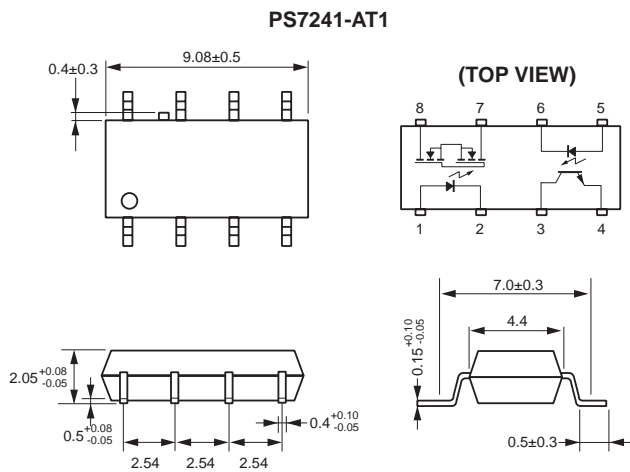
ORDERING INFORMATION

PART NUMBER	PACKAGE	PACKING STYLE
PS7241-AT1	8-pin SOP	Magazine case 45 pcs
PS7241-AT1-F3		Embossed Tape 1500 pcs/reel
PS7241-AT1-F4		
PS7241-AT5		Magazine case 45 pcs
PS7241-AT5-F3		Embossed Tape 1500 pcs/reel
PS7241-AT5-F4		

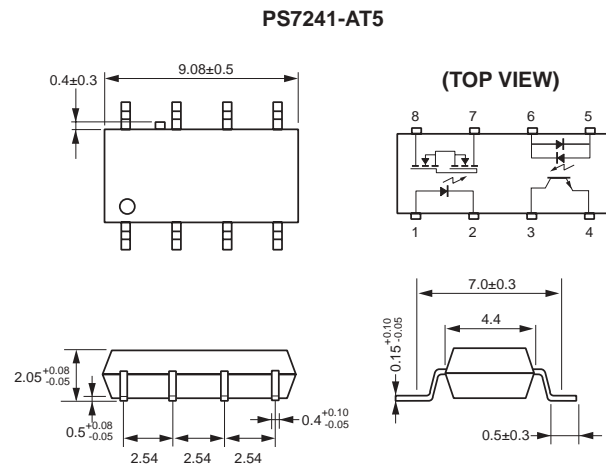
Notes:

1. Operation in excess of any one of these parameters may result in permanent damage.
2. PW = 100 μs, Duty Cycle = 1%.
3. PW = 100 ms, 1 shot.
4. PS7241-AT1 only.
5. AC voltage for 1 minute at TA = 25 °C, RH = 60 % between input and output.

OUTLINE DIMENSIONS (Units in mm)



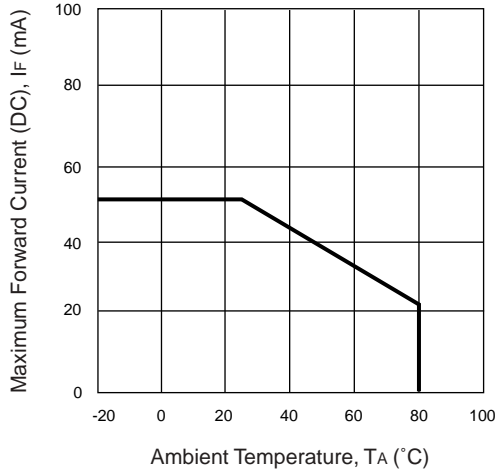
- 1 LED Anode
- 2 LED Cathode
- 3 Tr Collector
- 4 Tr Emitter
- 5 LED Anode
- 6 LED Cathode/Anode
- 7 MOSFET
- 8 MOSFET



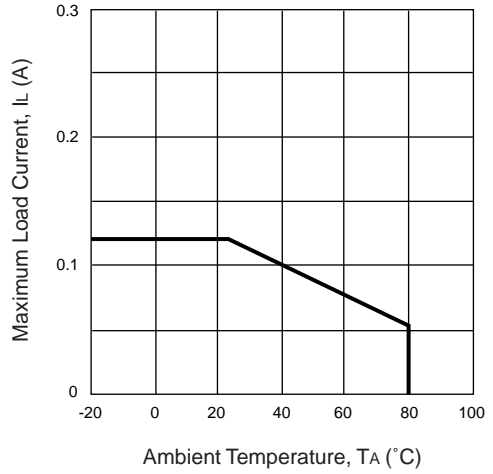
- 1 LED Anode
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OCMOS TYPICAL PERFORMANCE CURVES (TA = 25°C)

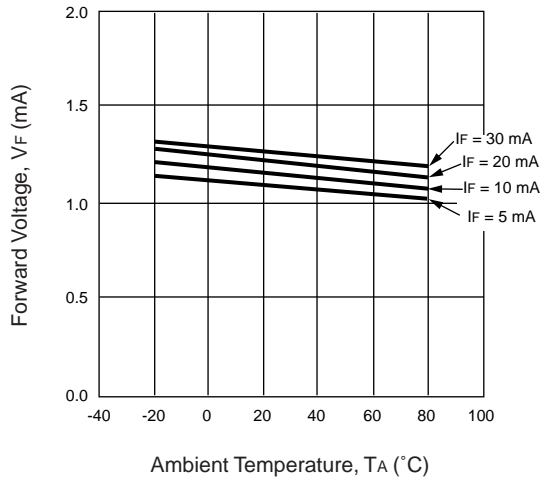
MAXIMUM FORWARD CURRENT (DC)
vs. AMBIENT TEMPERATURE



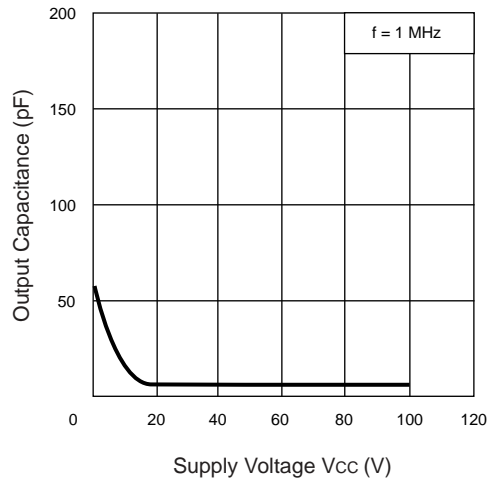
MAXIMUM LOAD CURRENT
vs. AMBIENT TEMPERATURE



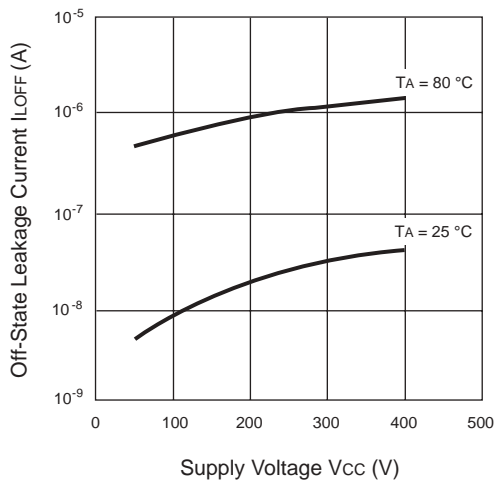
FORWARD VOLTAGE vs.
AMBIENT TEMPERATURE



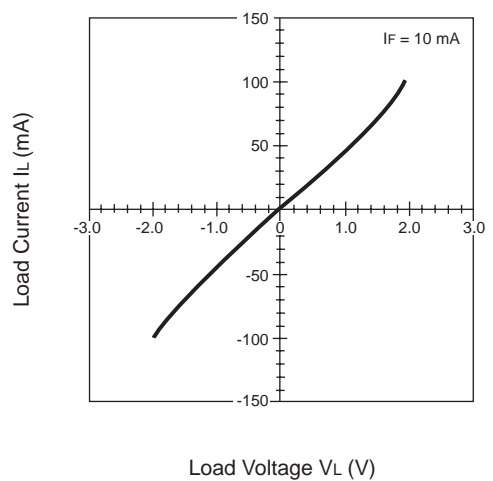
OUTPUT CAPACITANCE
vs. SUPPLY VOLTAGE



OFF-STATE LEAKAGE CURRENT
vs. SUPPLY VOLTAGE

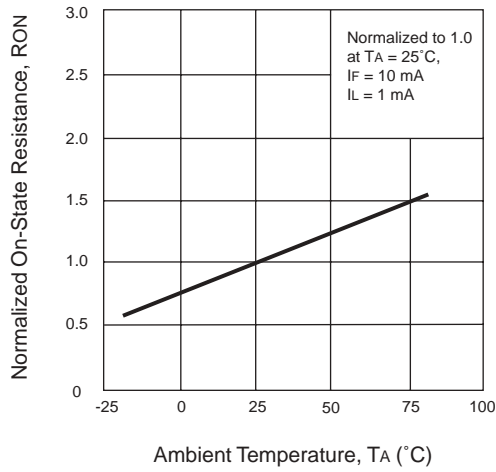


LOAD CURRENT vs.
LOAD VOLTAGE

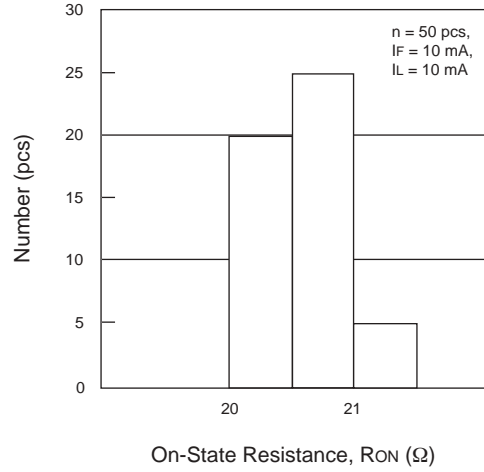


OCMOS TYPICAL PERFORMANCE CURVES (TA = 25°C)

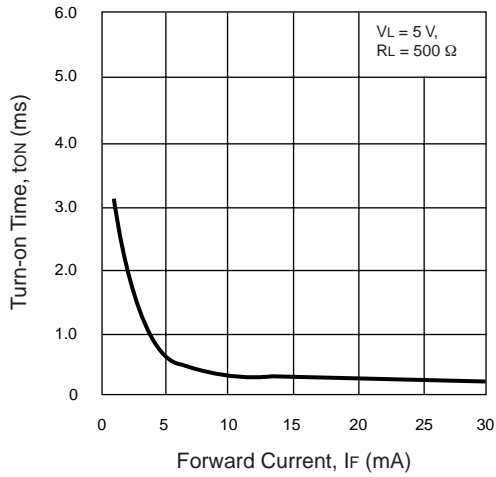
NORMALIZED ON-STATE RESISTANCE vs. AMBIENT TEMPERATURE



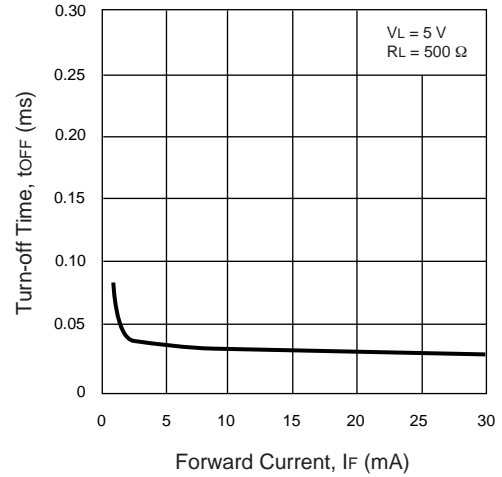
ON-STATE RESISTANCE DISTRIBUTION



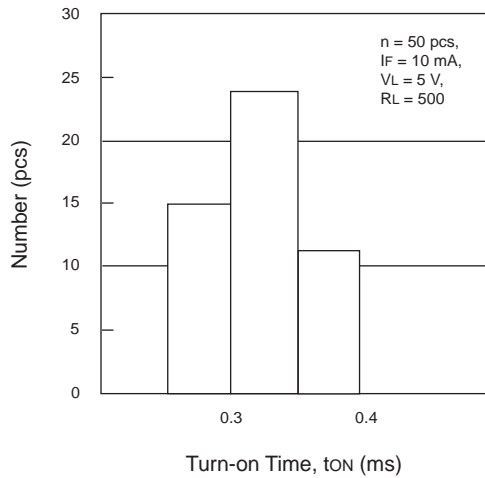
TURN-ON TIME vs. FORWARD CURRENT



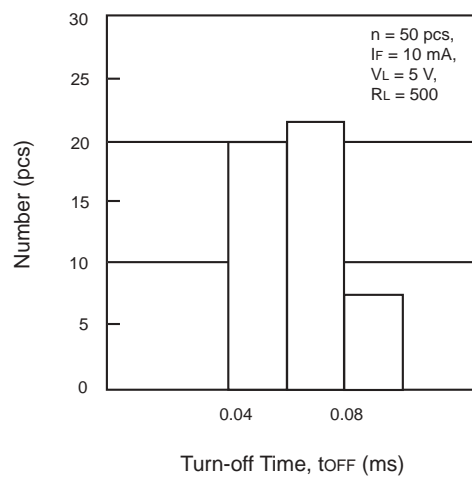
TURN-OFF TIME vs. FORWARD CURRENT



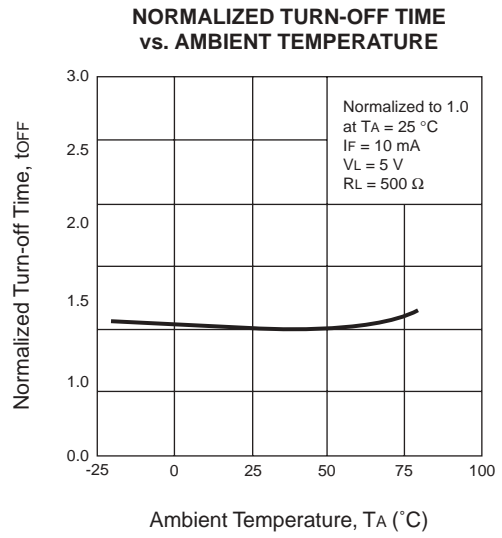
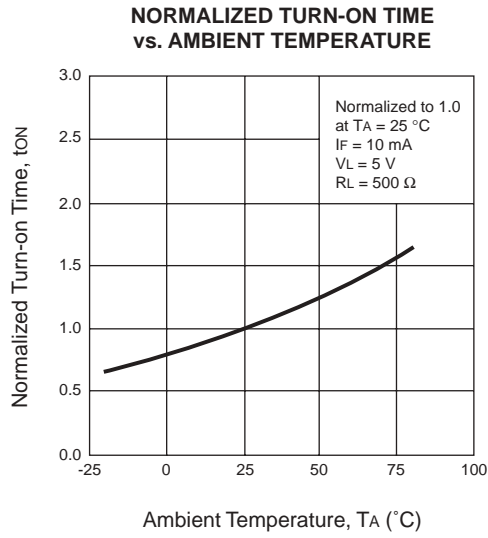
TURN-ON TIME DISTRIBUTION



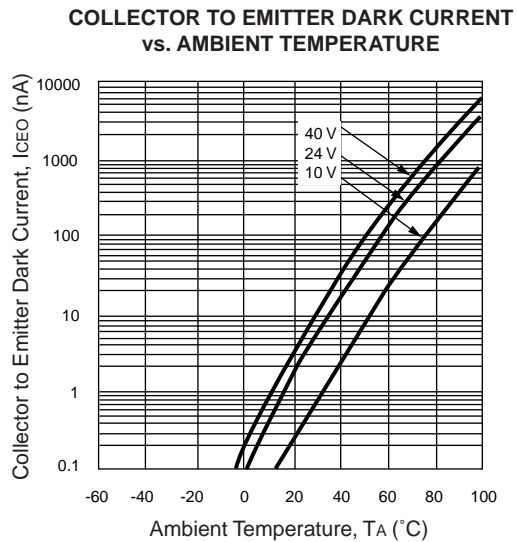
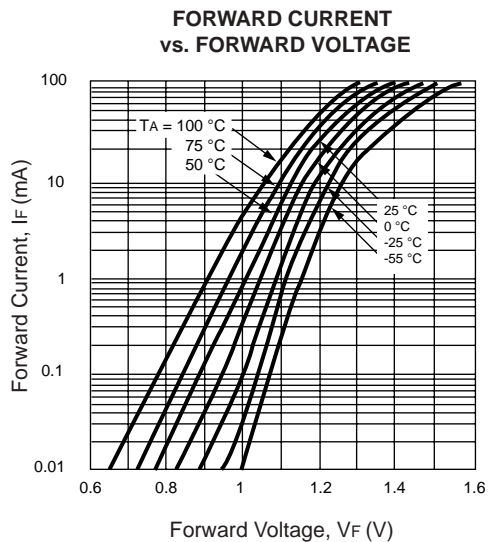
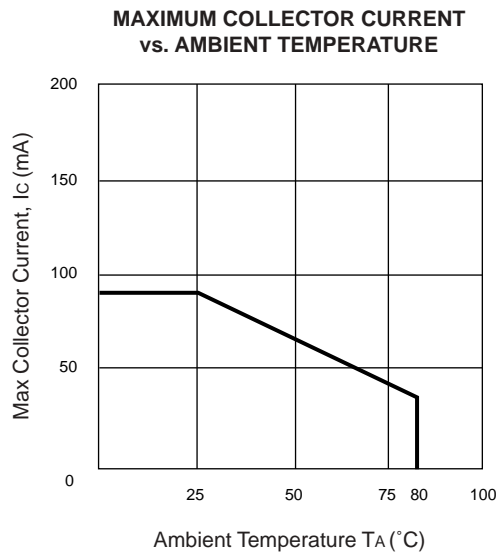
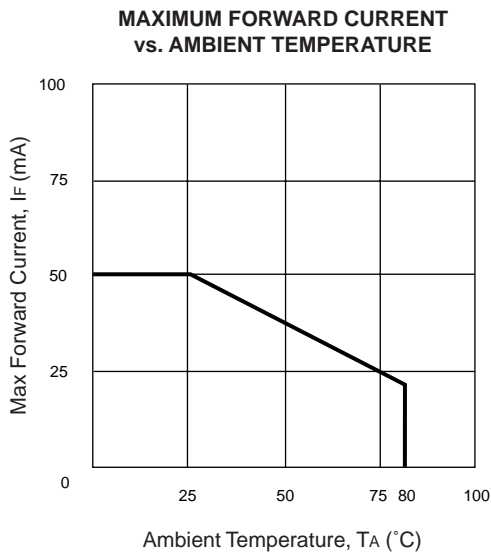
TURN-OFF TIME DISTRIBUTION



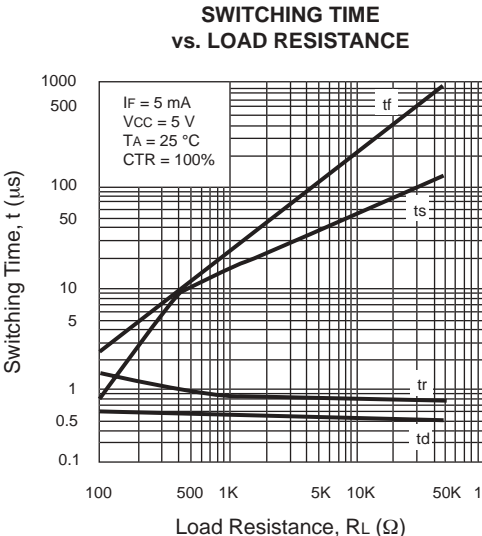
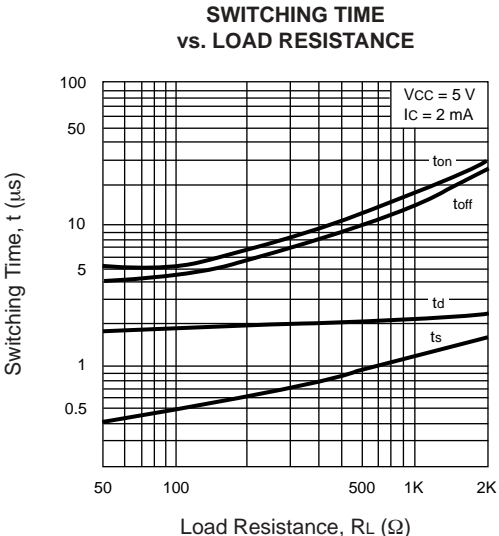
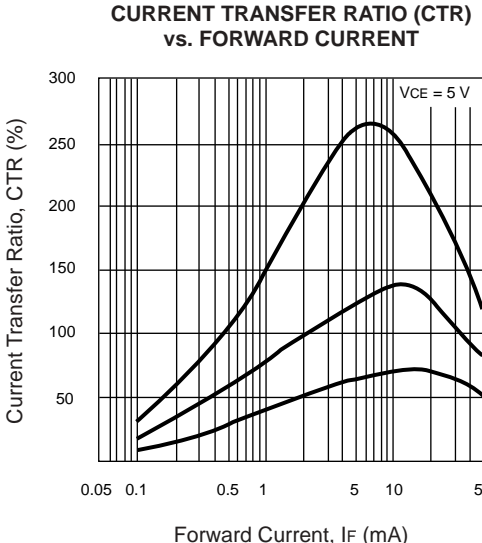
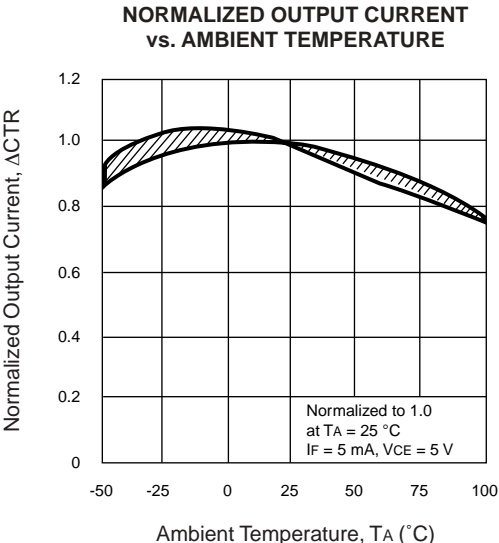
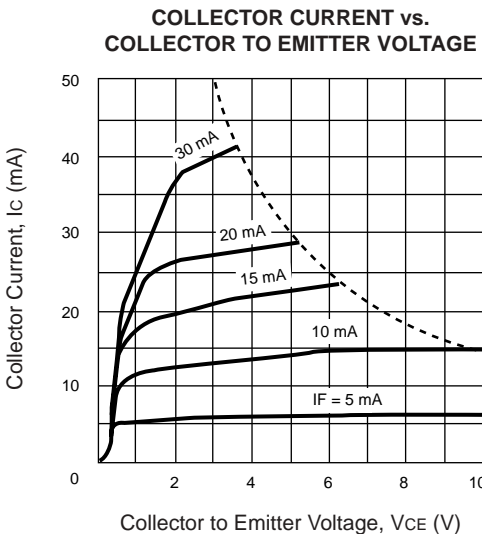
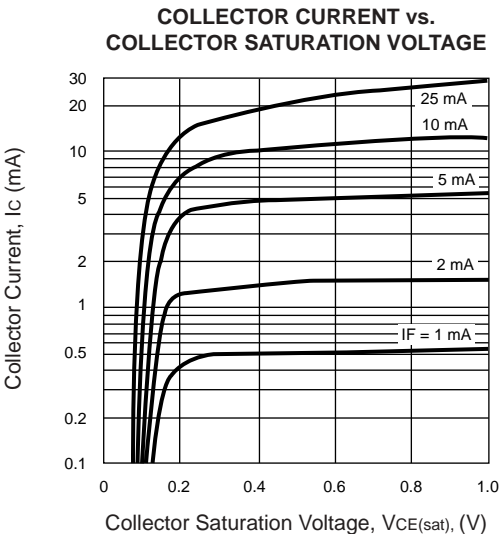
OCMOS TYPICAL PERFORMANCE CURVES (TA = 25°C)



PHOTOCOUPLER TYPICAL PERFORMANCE CURVES (TA = 25°C)

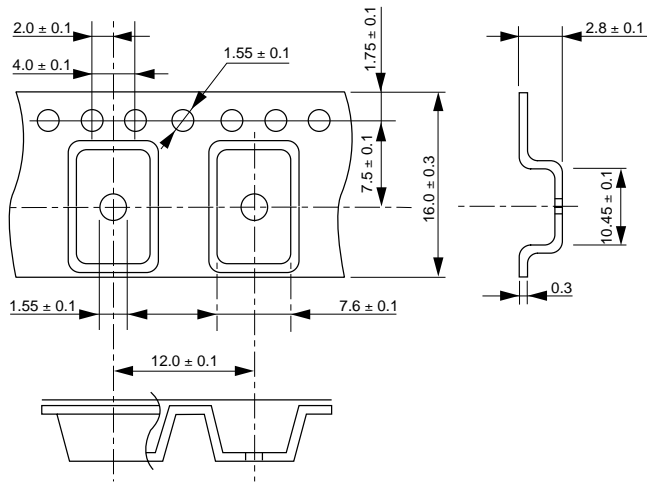


PHOTOCOUPLER TYPICAL PERFORMANCE CURVES (TA = 25°C)

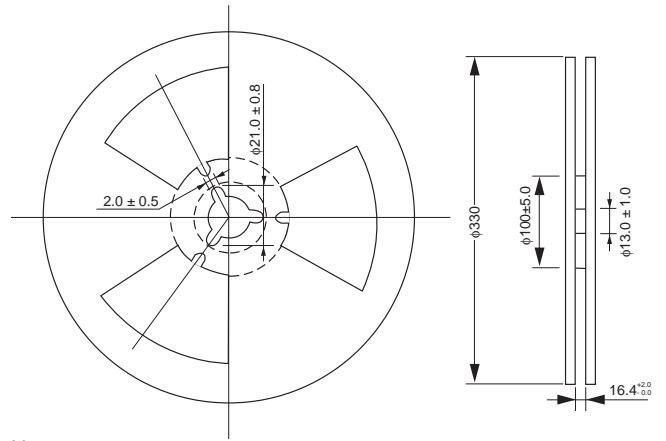


TAPING SPECIFICATIONS (Units in mm)

OUTLINE AND DIMENSIONS (TAPE)



OUTLINE AND DIMENSIONS (REEL)

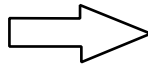
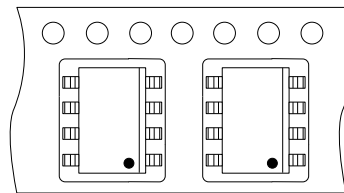
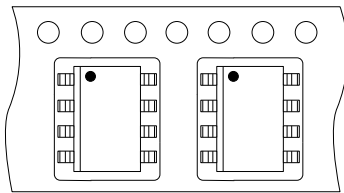


Notes:
1. Packaging : 1500 pcs/reel

TAPING DIRECTION

PS7241-AT1-F3
PS7241-AT5-F3

PS7241-AT1-F4
PS7241-AT5-F4

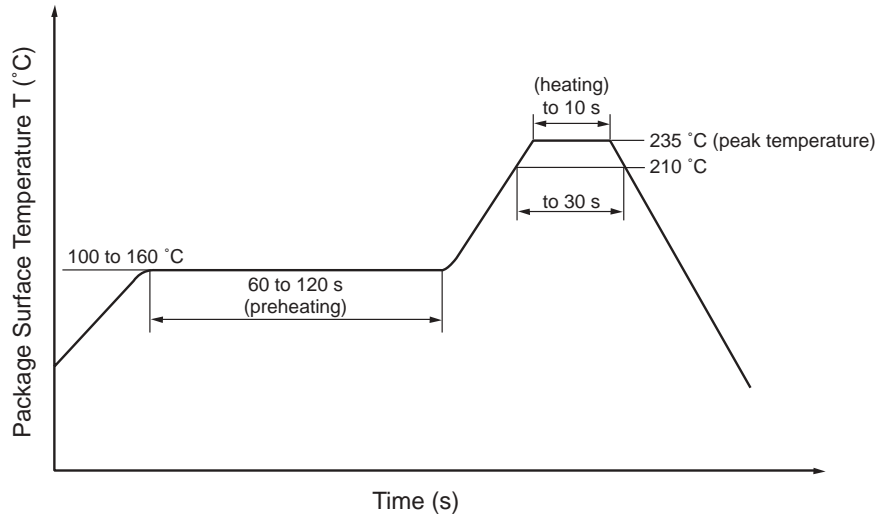


RECOMMENDED SOLDERING CONDITIONS

(1) Infrared reflow soldering

- Peak reflow temperature 235 °C or below (package surface temperature)
- Time of temperature higher than 210 °C 30 seconds or less
- Number of reflows Two
- Flux Rosin flux containing small amount of chlorine
(The flux with a maximum chlorine content of 0.2 Wt % is recommended.)

Recommended Temperature Profile of Infrared Reflow

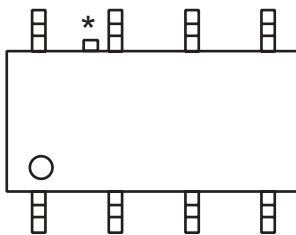


(2) Dip soldering

- Temperature 260 °C or below (molten solder temperature)
- Time 10 seconds or less
- Number of times One
- Flux Rosin flux containing small amount of chlorine
(The flux with a maximum chlorine content of 0.2 Wt % is recommended.)

(3) Cautions

- Fluxes
 - Avoid removing the residual flux with freon-based cleaning solvent.
 - Avoid shorting between portion of frame and leads.



* Portion of frame

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