ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

INPUT

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward Voltage	V_F	I_F = ±20mA		1.2	1.4	V
Input Capacitance	C_{IN}	V_F = 0V, f = 1MHz		60		pF

OUTPUT

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Collector—Emitter breakdown Voltage	BV_{CEO}	I_C = 0.1mA, I_F = 0mA	80			V
Emitter—Collector breakdown Voltage	BV_{ECO}	I_E = 10µA, I_F = 0mA	7			V
Collector-Emitter Dark Current	I_{CEO}	V_{CE} = 50V, I_F = 0mA			100	nA

COUPLED

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Current transfer ratio	CTR	I_F = ±1mA, V_{CE} = 5V	20		400	%
Collector—Emitter Saturation Voltage	$V_{CE(sat)}$	I_F = ±8mA, I_C = 2.4mA			0.4	V
Input to Output Isolation Voltage	V_{ISO}	See note 1	3750			V_{RMS}
Input to Output Isolation Resistance	R_{ISO}	V_{IO}= 500V See note 1	$5x10^{10}$	$1x10^{11}$		Ω
Floating Capacitance	C_f	V = 0V, f = 1MHz		0.8	1	pF
Output Rise Time	t_r	V_{CE} = 2V, Ic = ±2mA, R_L = 100Ω		3	18	µs
Output Fall Time	t_f	V_{CE} = 2V, Ic = ±2mA, R_L = 100Ω		4	18	µs

Note 1 : Measured with input leads shorted together and output leads shorted together, R.H 40% to 60%

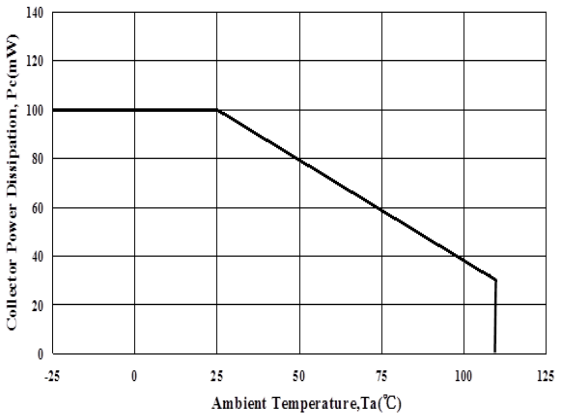


Fig 1 Collector Power Dissipation vs T_A

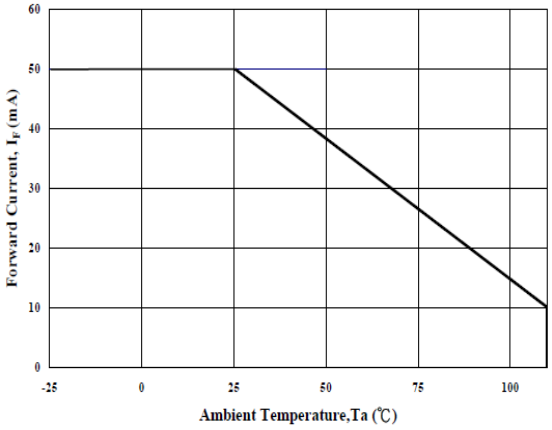


Fig 2 Forward Current vs T_A

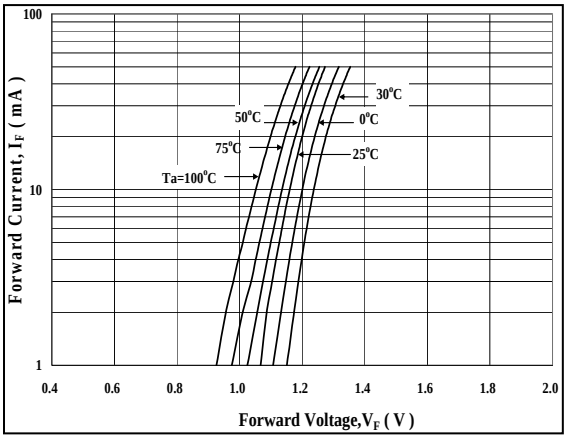


Fig 3 Forward Current vs Forward Voltage

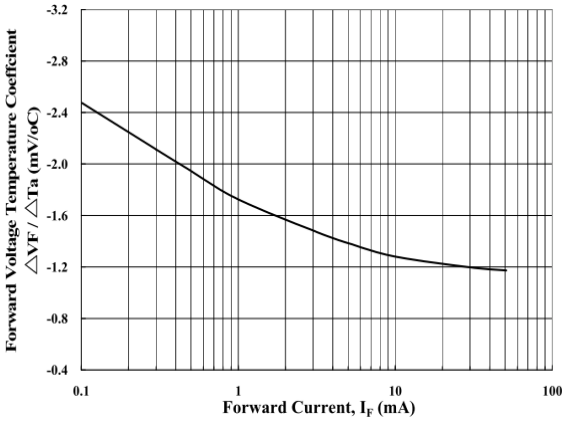


Fig 4 Forward Current Temperature Coefficient vs Forward Current

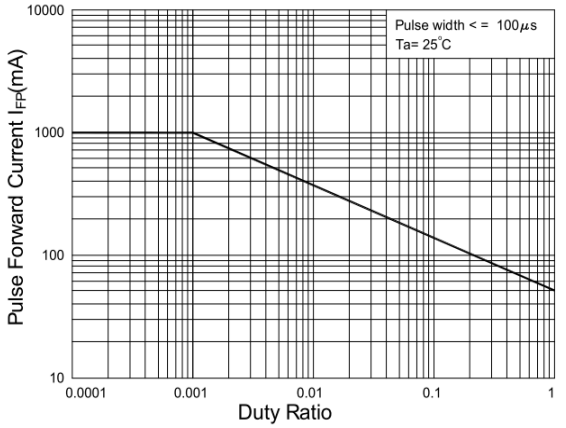


Fig 5 Pulse Forward Current vs Duty Cycle

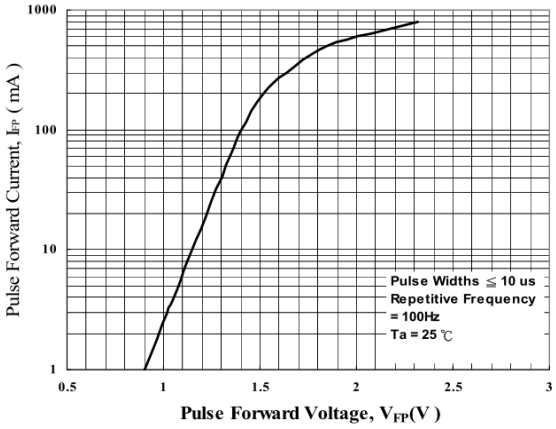


Fig 6 Pulse Forward Current vs Pulse Forward Voltage

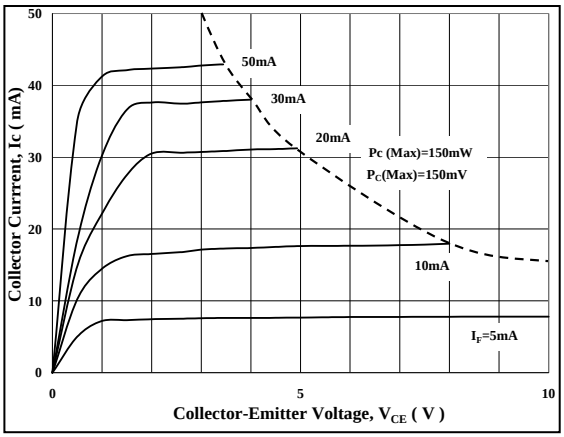


Fig 7 Collector Current vs Collector-Emitter Voltage

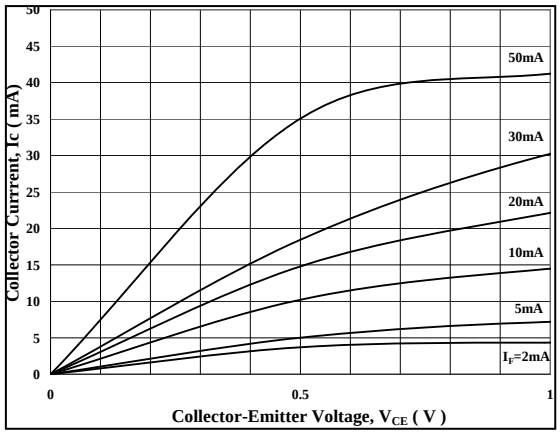


Fig 8 Collector Current vs Low Collector-Emitter Voltage

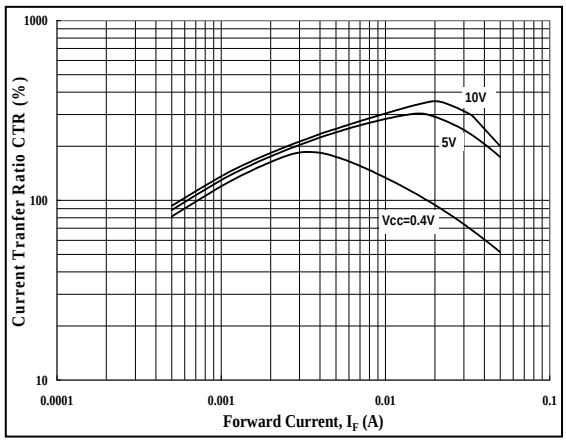


Fig 9 CTR vs Forward Current

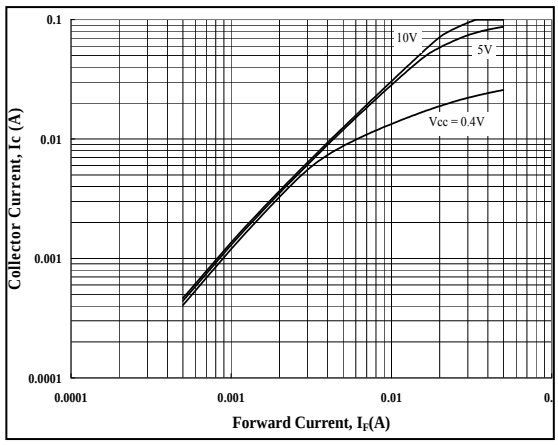


Fig 10 Collector Current vs Forward Current

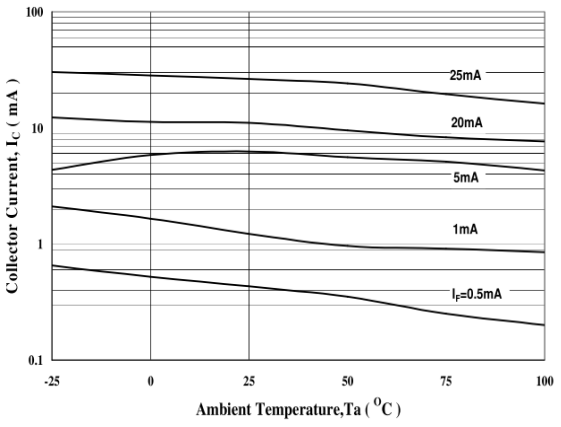


Fig 11 Collector Current vs T_A

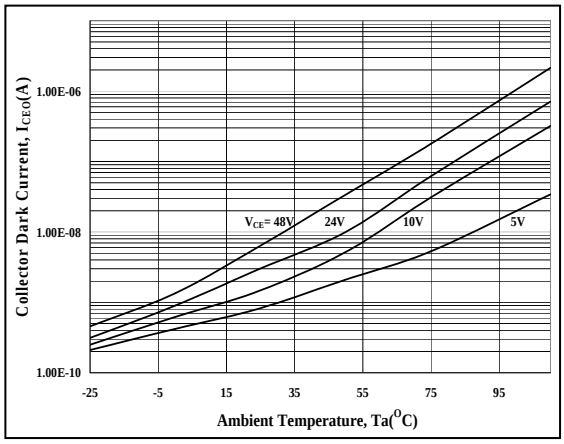


Fig 12 Collector Dark Current vs T_A

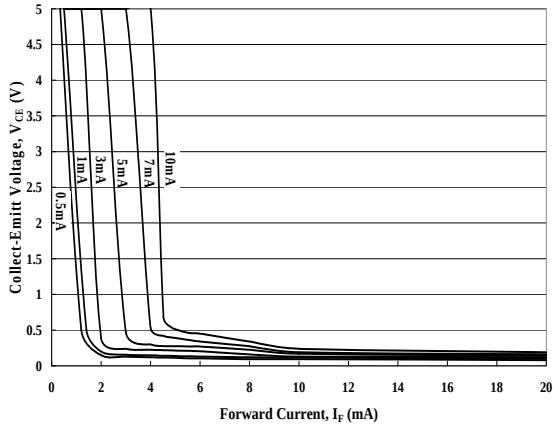


Fig 13 Collector-Emitter Saturation Voltage vs Forward Current

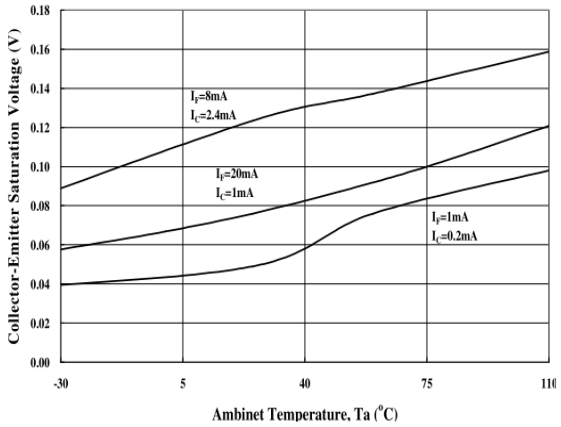


Fig 14 Collector-Emitter Saturation Voltage vs T_A

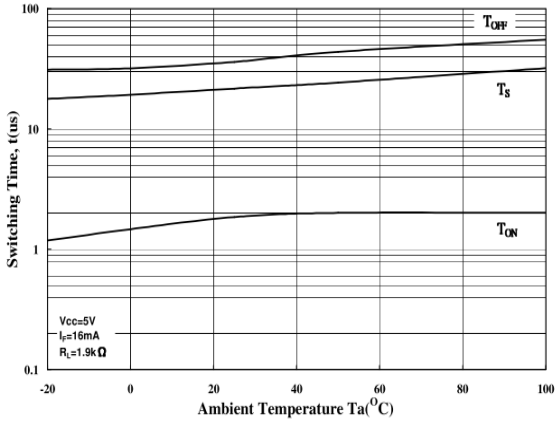


Fig 15 Switching Time vs T_A

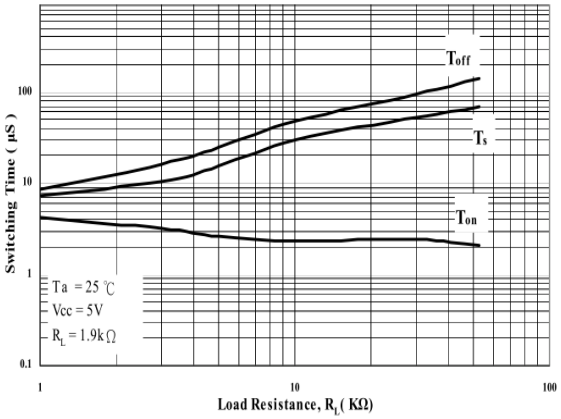


Fig 16 Switching Time vs Load Resistance

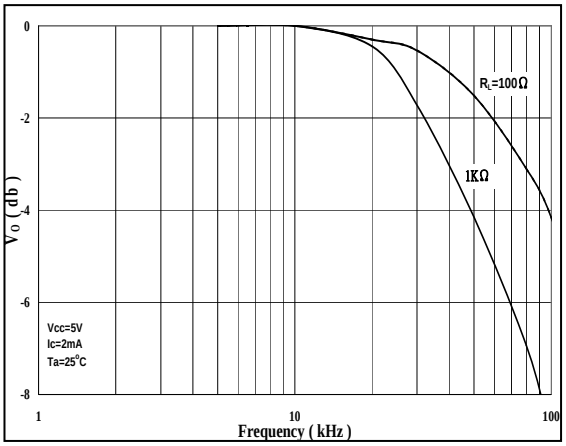
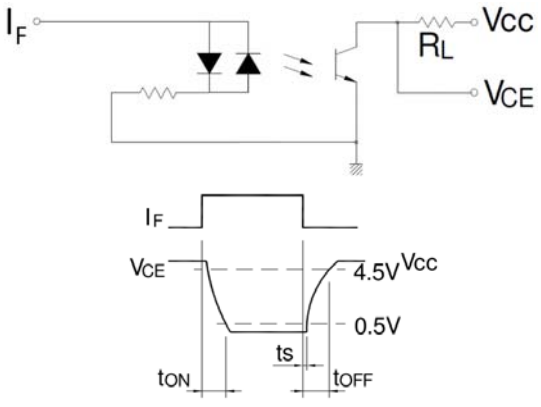


Fig 11 Frequency Response

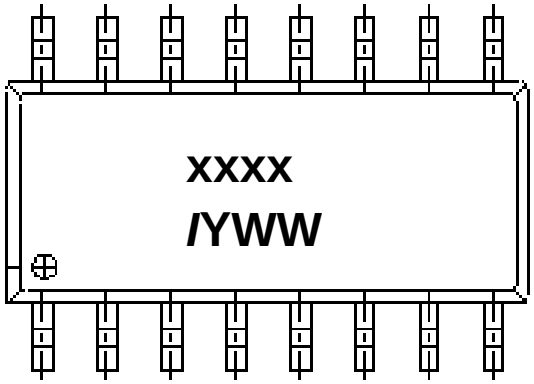


Switching Time Test Circuit

ORDER INFORMATION

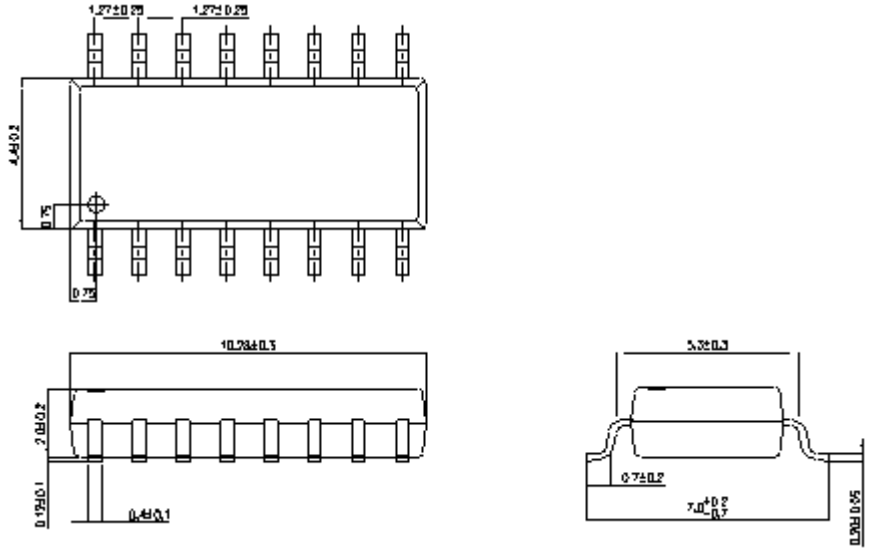
IS2805-4			
After PN	**PN**	**Description**	**Packing quantity**
None	IS2805-4	Surface Mount Tape & Reel	2000 pcs per reel

Device Marking

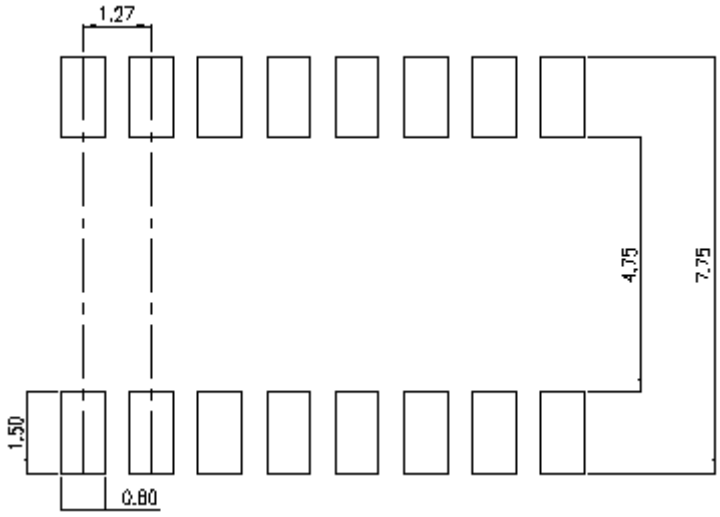


Xxxx denotes Device Part Number
Y denotes 1 digit Year code
WW denotes 2 digit Week code
/ denotes Isocom

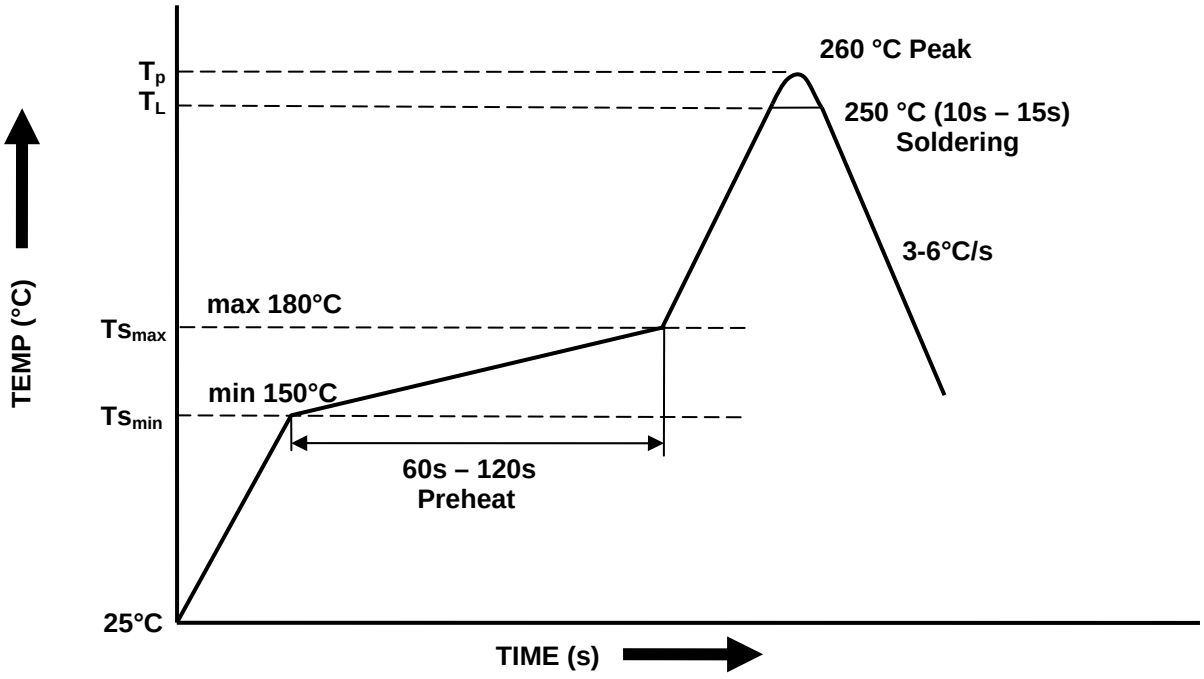
PACKAGE DIMENSIONS (mm)



Recommended Solder Pad Layout (mm)

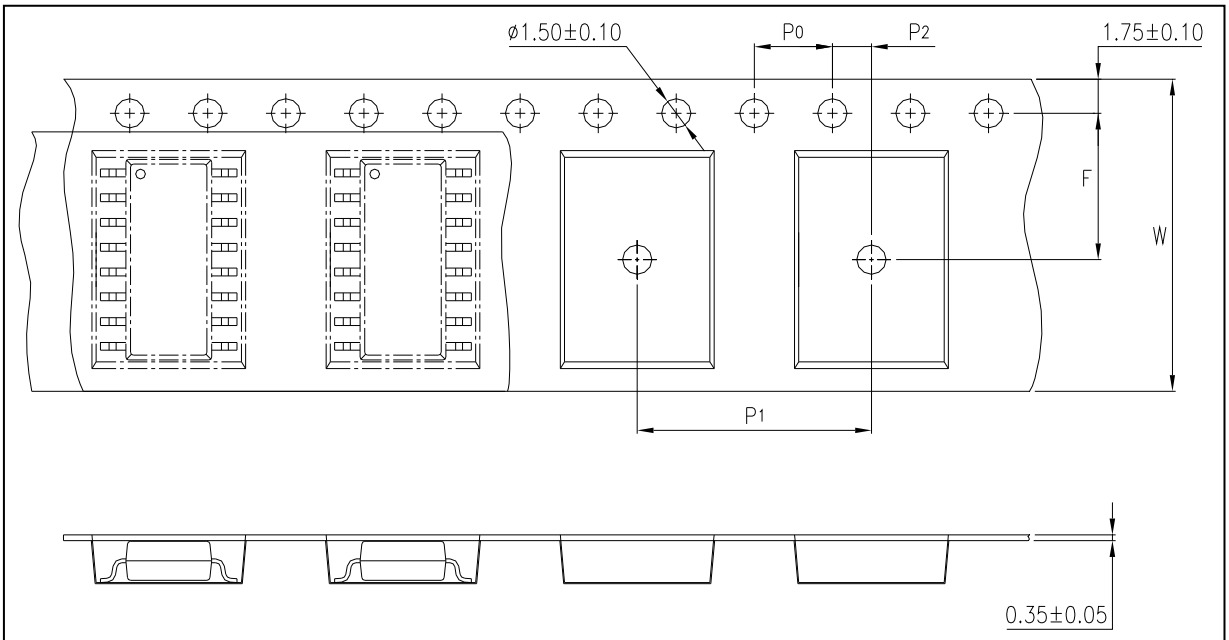


IR REFLOW SOLDERING TEMPERATURE PROFILE
(One Time Reflow Soldering is Recommended)



Profile item	Conditions
Preheat - Temperature Min (T_{Smin}) - Temperature Max (T_{Smax}) - Time (min to max) (ts)	 150˚C 180˚C 90±30˚C
Soldering zone - Temperature (T_L) - Time (t_L)	 250˚C 10~15 sec
Peak Temperature (T_P)	260˚C
Ramp-down rate	3~6˚C / sec

Tape and Reel Packaging



Description	Symbol	Dimension in mm (inches)
Tape wide	W	16 ± 0.3 (.47)
Pitch of sprocket holes	P_0	4 ± 0.1 (.15)
Distance of compartment	F P_2	7.5 ± 0.1 (.217) 2 ± 0.1 (.079)
Distance of compartment to compartment	P_1	12 ± 0.1 (.63)

Notes

- Isocom is continually improving the quality, reliability, function or design and Isocom reserves the right to make changes without further notices.

- The products shown in this publication are designed for the general use in electronic applications such as office automation equipment, communications devices, audio/visual equipment, electrical application and instrumentation.

- For equipment/applications where high reliability or safety is required, such as space applications, nuclear power control equipment, medical equipment, etc., please contact our sales representatives.

- When requiring a device for any ”specific” application, please contact our sales for advice.

- The contents described herein are subject to change without prior notice.

- Do not immerse unit’s body in solder paste.