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 = 1KHz		50	250	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 = 0.01mA, I_F = 0mA	6			V
Collector-Emitter Dark Current	I_{CEO}	V_{CE} = 20V, 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		300	%
CTR Symmetry		I_F = ±1mA, V_{CE} = 5V	0.5		2.0	
Collector—Emitter Saturation Voltage	$V_{CE(sat)}$	I_F = ±20mA, I_C = 1mA		0.1	0.2	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_{IO}	V_F = 0V, f = 1MHz		0.6	1.0	pF
Output Rise Time	t_r	V_{CE} = 2V, Ic = 2mA, R_L = 100Ω		6	18	µs
Output Fall Time	t_f			6	18	µs

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

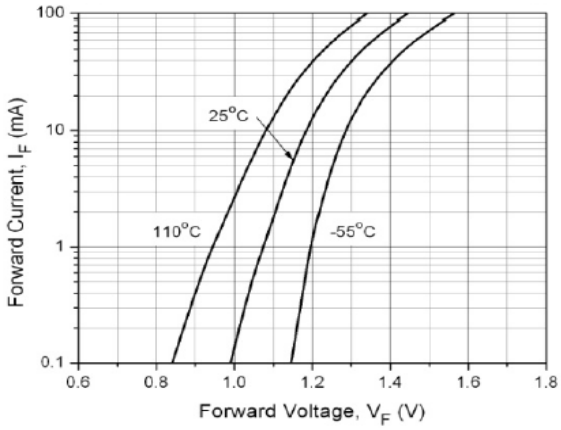


Fig 1 Forward Current vs Forward Voltage

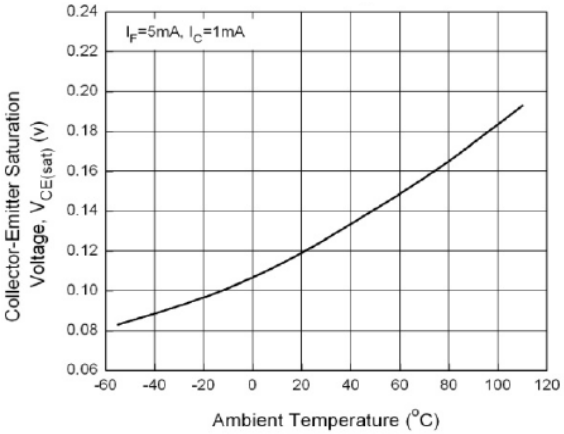


Fig 2 Collector-Emitter Saturation Voltage vs Ambient Temperature

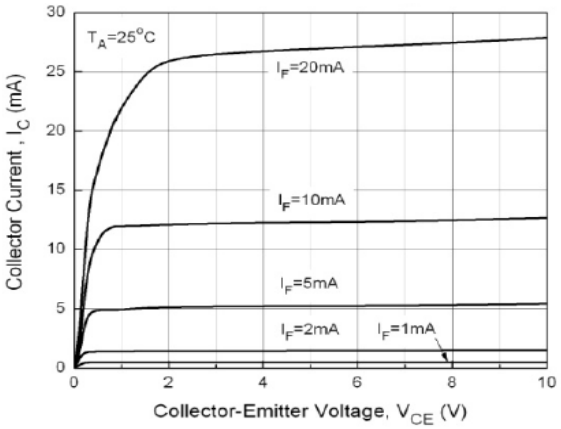


Fig 3 Collector Current vs Collector-Emitter Voltage (1)

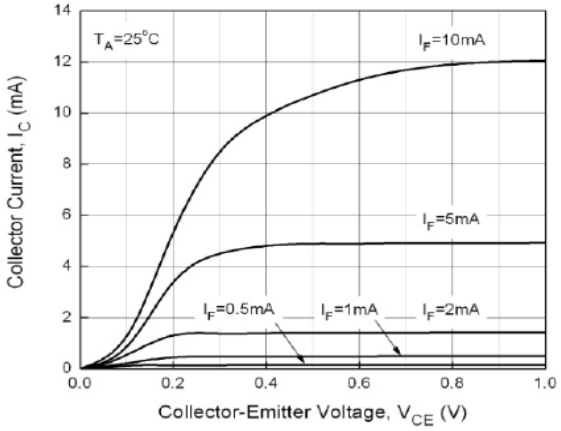


Fig 4 Collector Current vs Collector-Emitter Voltage (2)

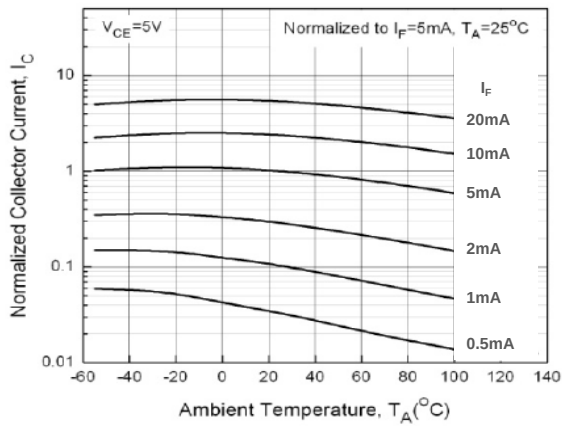


Fig 5 Normalized Collector Current vs Ambient Temperature

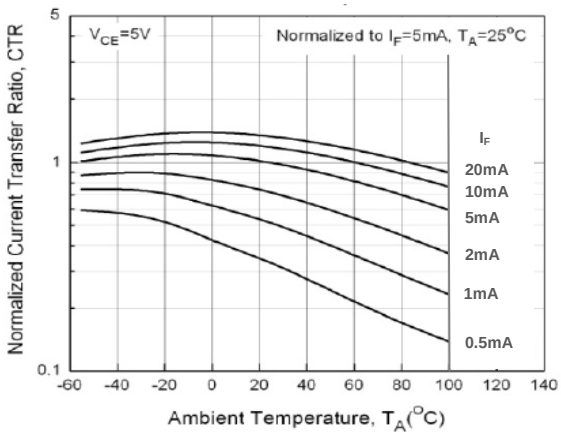


Fig 6 Normalized Current Transfer Ratio vs Ambient Temperature

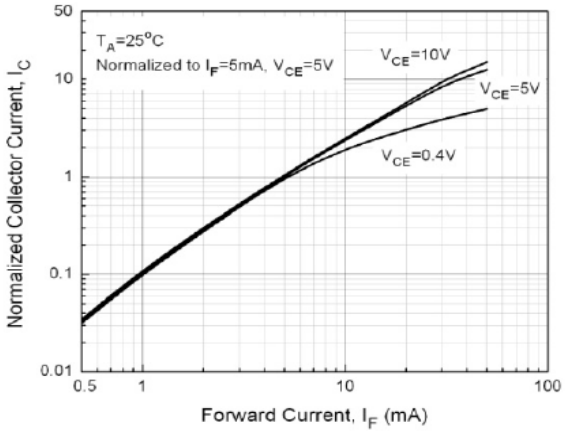


Fig 7 Normalized Collector Current vs Forward Current

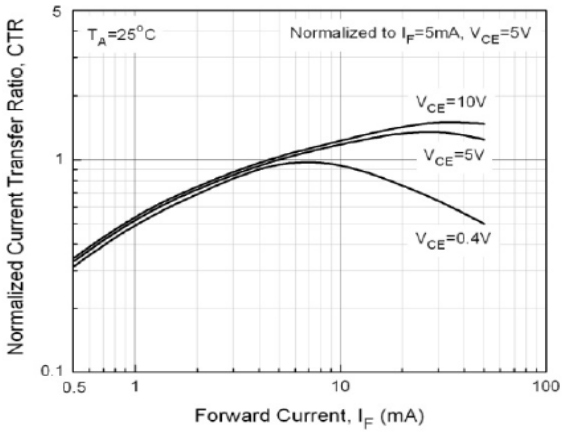


Fig 8 Normalized Current Transfer Ratio vs Forward Current

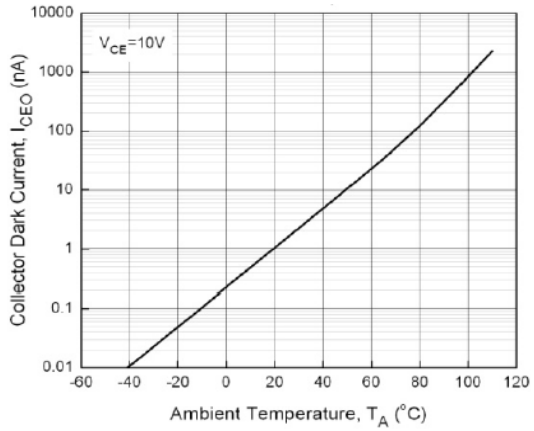


Fig 9 Collector Dark Current vs Ambient Temperature

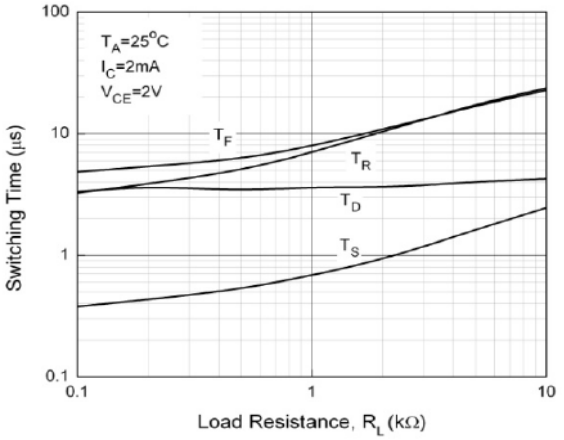
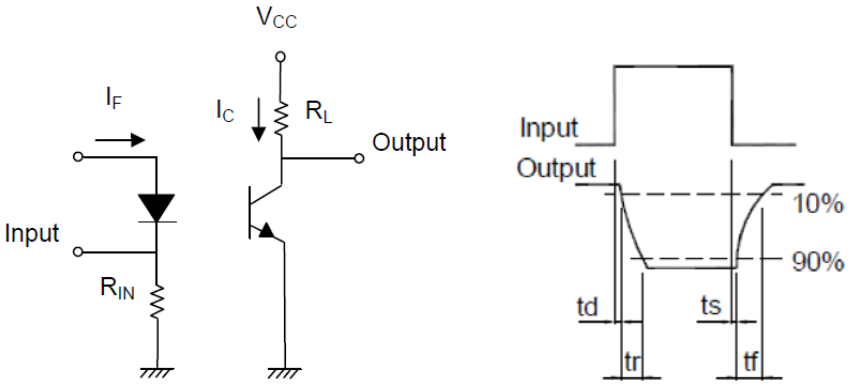


Fig 10 Switching Time vs Load Resistance

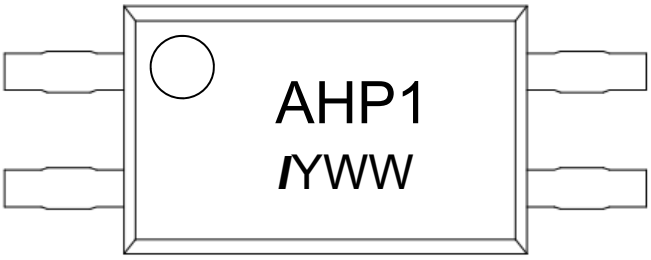


Switching Time Test Circuit

ORDER INFORMATION

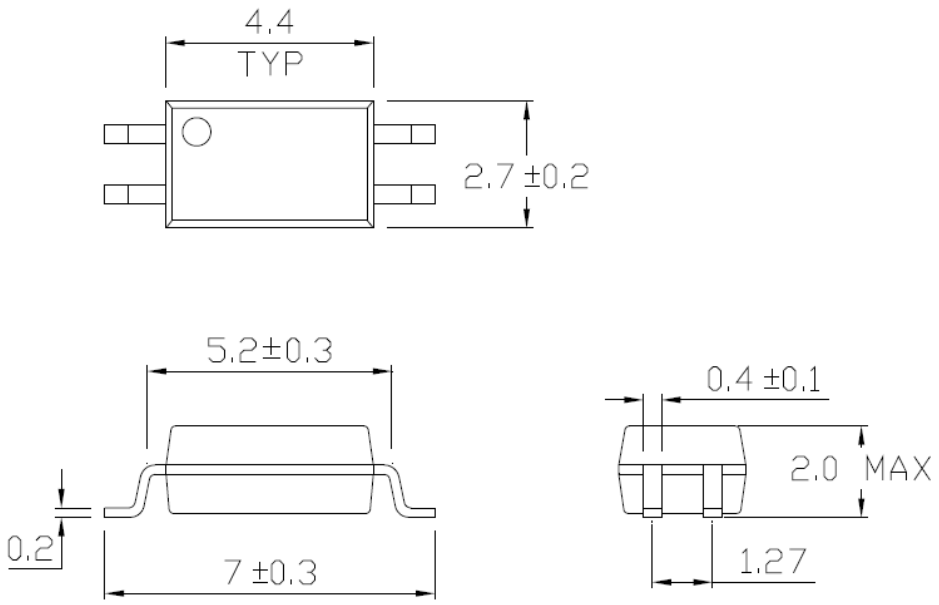
IS280			
After PN	**PN**	**Description**	**Packing quantity**
None	IS280	Surface Mount Tape & Reel	1000 pcs per reel

DEVICE MARKING

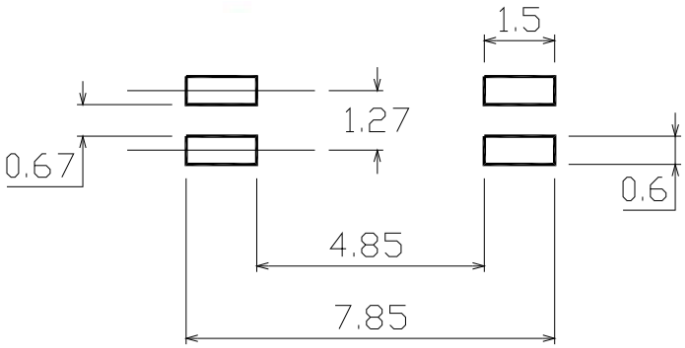


AHP1 denotes Device Part Number
I denotes Isocom
Y denotes 1 digit Year code
WW denotes 2 digit Week code

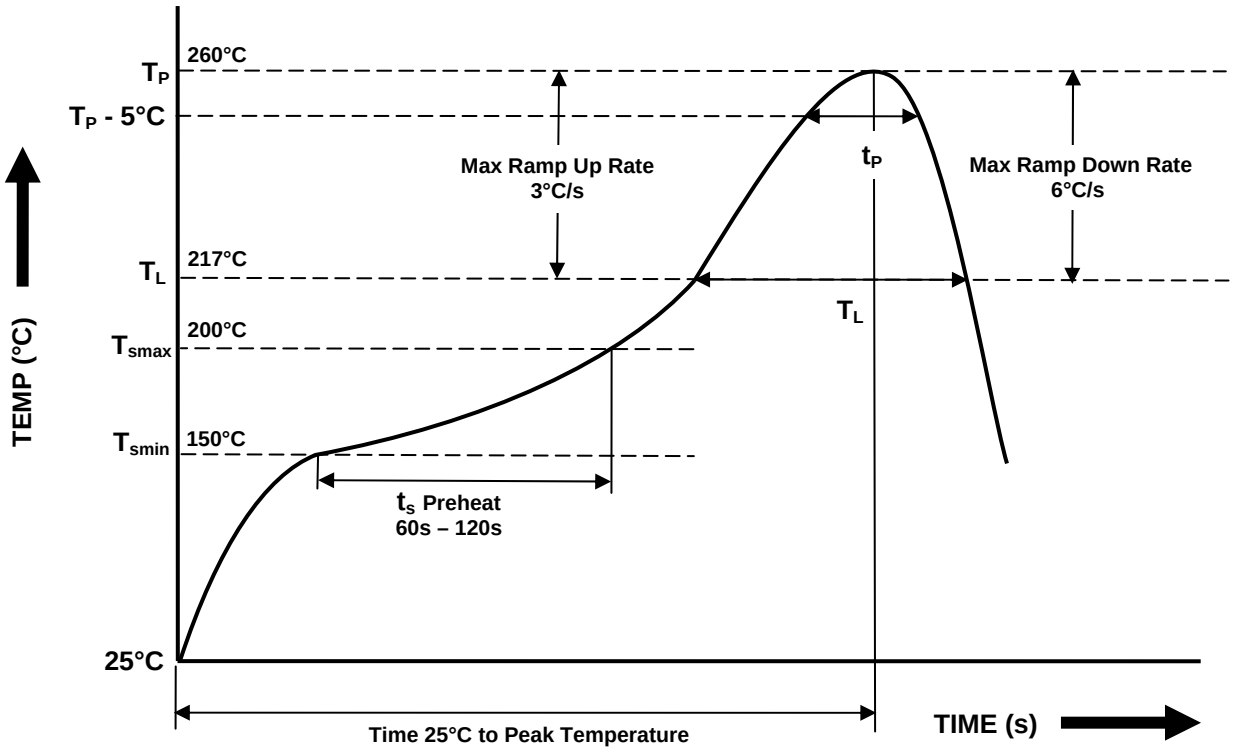
PACKAGE DIMENSIONS (mm)



RECOMMENDED SOLDER PAD LAYOUT (mm)

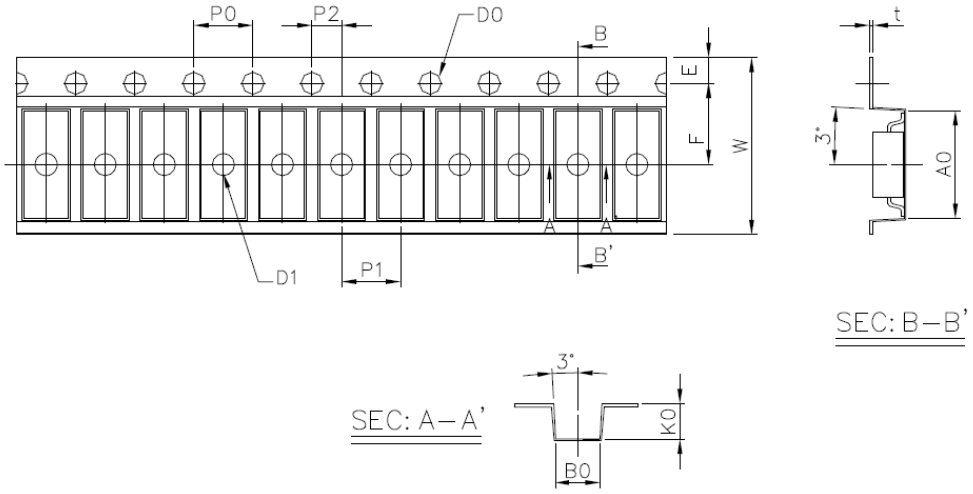


IR REFLOW SOLDERING TEMPERATURE PROFILE
(One Time Reflow Soldering is Recommended)



Profile Details	Conditions
Preheat - Min Temperature (T_{SMIN}) - Max Temperature (T_{SMAX}) - Time T_{SMIN} to T_{SMAX} (t_s)	 150°C 200°C 60s - 120s
Soldering Zone - Peak Temperature (T_P) - Liquidous Temperature (T_L) - Time within 5°C of Actual Peak Temperature (T_P – 5°C) - Time maintained above T_L (t_L) - Ramp Up Rate (T_L to T_P) - Ramp Down Rate (T_P to T_L)	 260°C 217°C 30s 60s 3°C/s max 6°C/s max
Average Ramp Up Rate (T_{smax} to T_P)	3°C/s max
Time 25°C to Peak Temperature	8 minutes max

TAPE AND REEL PACKAGING



Dimension No.	A	B	Do	D1	E	F
Dimension (mm)	3.0 ± 0.1	7.3 ± 0.1	1.5 + 0.1/-0	1.5 ± 0.1	1.7 5± 0.1	5.5 ± 0.1

Dimension No.	Po	P1	P2	t	W	K
Dimension (mm)	4.0 ± 0.15	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.03	12.0 ± 0.2	2.4 ± 0.1

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- 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 device body in solder paste.

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