# Option 300
Gull Wing Surface Mount Option for Optocouplers

## Data Sheet

### Description

Option 300 is available on most optocouplers. It consists of standard dual-in-line package devices with gull wing leads. The lead profile is designed to be compatible with standard surface mount processes.

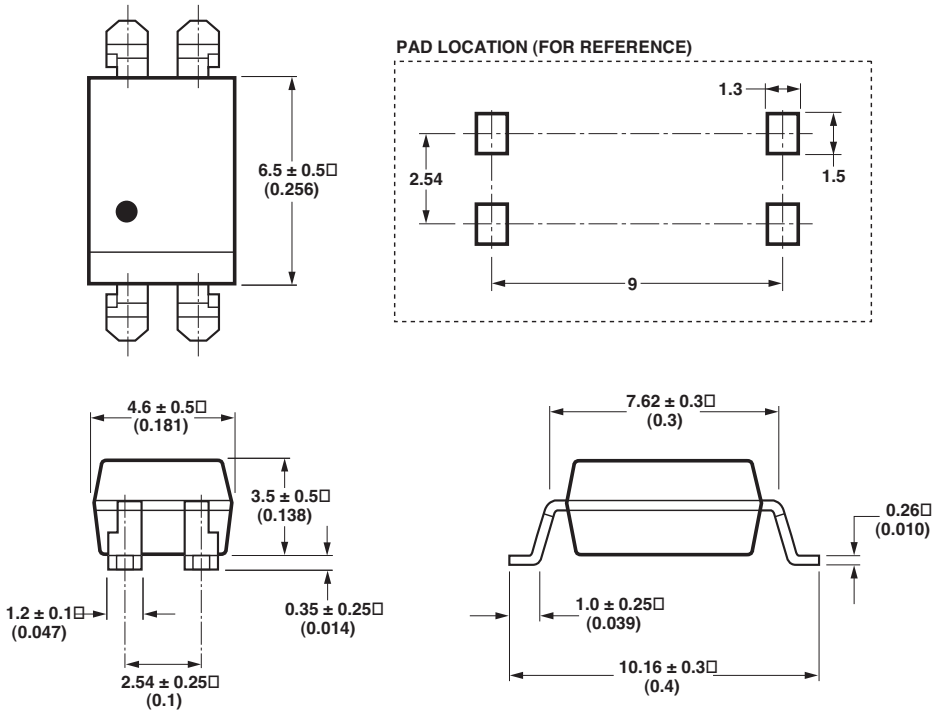
Option 300 enables electronic component assemblers to include Avago Technologies optocouplers on a PCB that utilizes surface mount processes. These options do not require "through hole" in a PCB. This reduces board costs, while potentially increasing assembly rates and component density per board. For the maximum solder reflow thermal profile, please refer to Figures 8 and 9.

### Ordering Information

To obtain optocouplers with gull wing leads, order the standard part number and Option 300. Example:

HCPL-2630#300

For Option 300, 4-Pin 300 mil package is shipped in tubes with 100 units per tube. 6-Pin 300 mil package is shipped in tubes with 65 units per tube. For solid state relay (Photo MOSFET) parts, their 6-Pin 300 mil or 8-Pin 300 mil packages are shipped in tubes with 50 units per tube. 8-Pin 300 mil package is shipped in tubes with 50 units per tube. 8-Pin 400 mil package is shipped in tubes with 42 units. To obtain optocouplers with gull wing leads shipped in tape and reel, order Option 500 instead of Option 300.




DIMENSIONS IN MILLIMETERS AND (INCHES)

**Figure 1. 4-pin 300 mil package.**

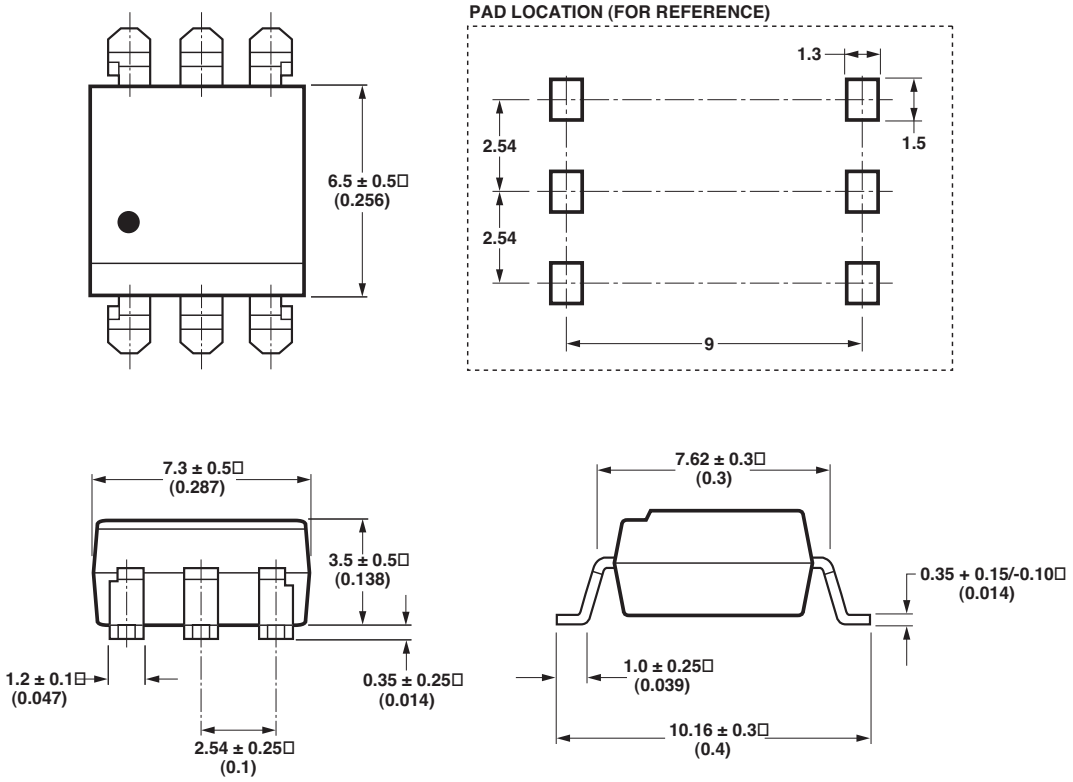



**Figure 2. 6-pin 300 mil package.**

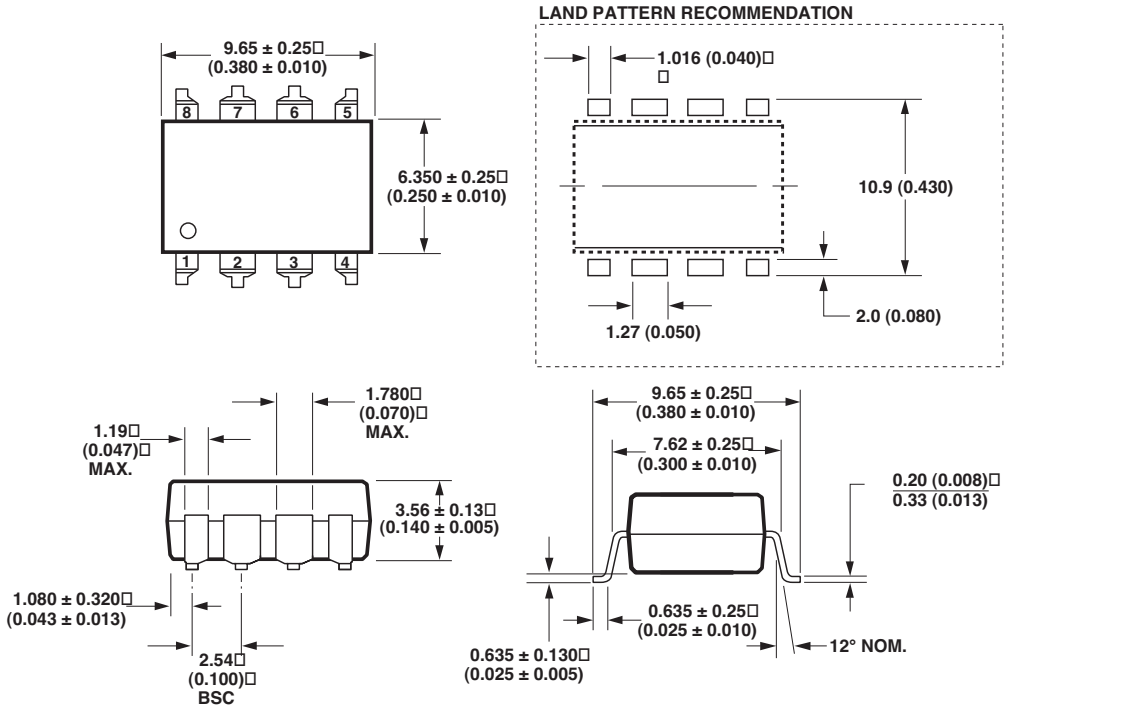



**Figure 3. 8-pin 300 mil package.**

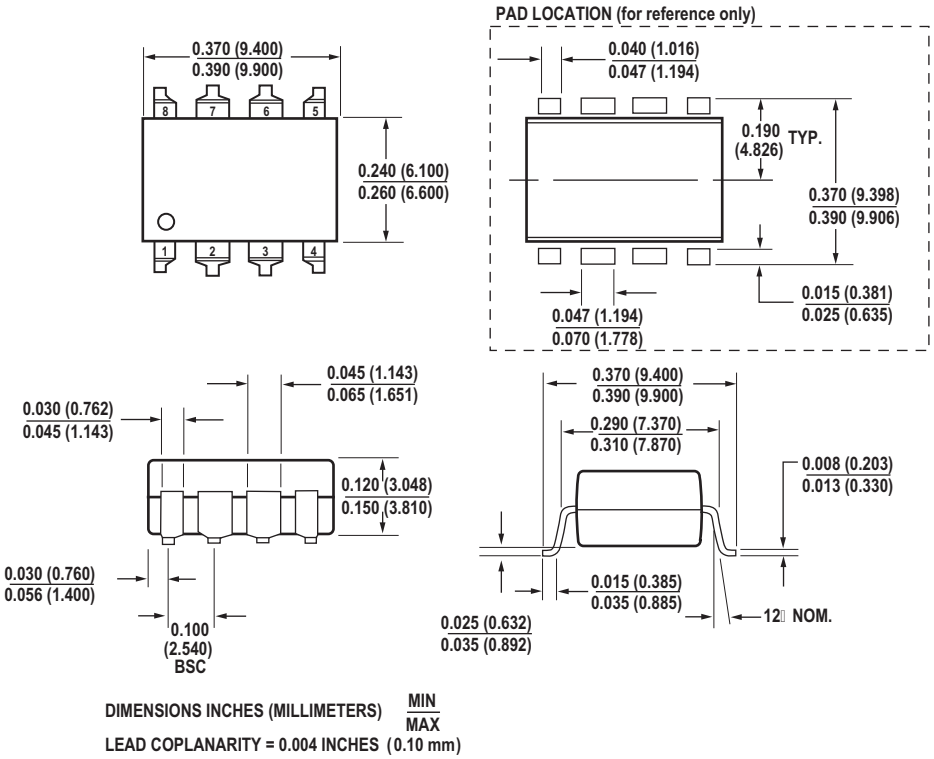



**Figure 4. 8-pin 300 mil package (Digital Isolator)**

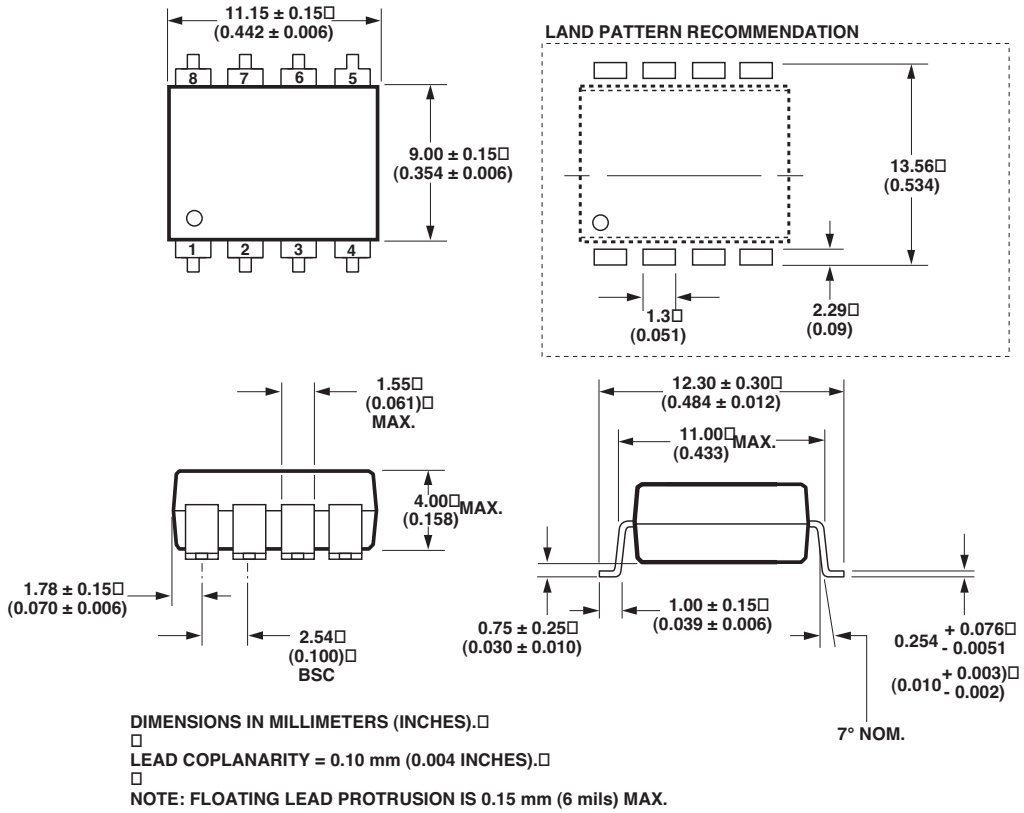
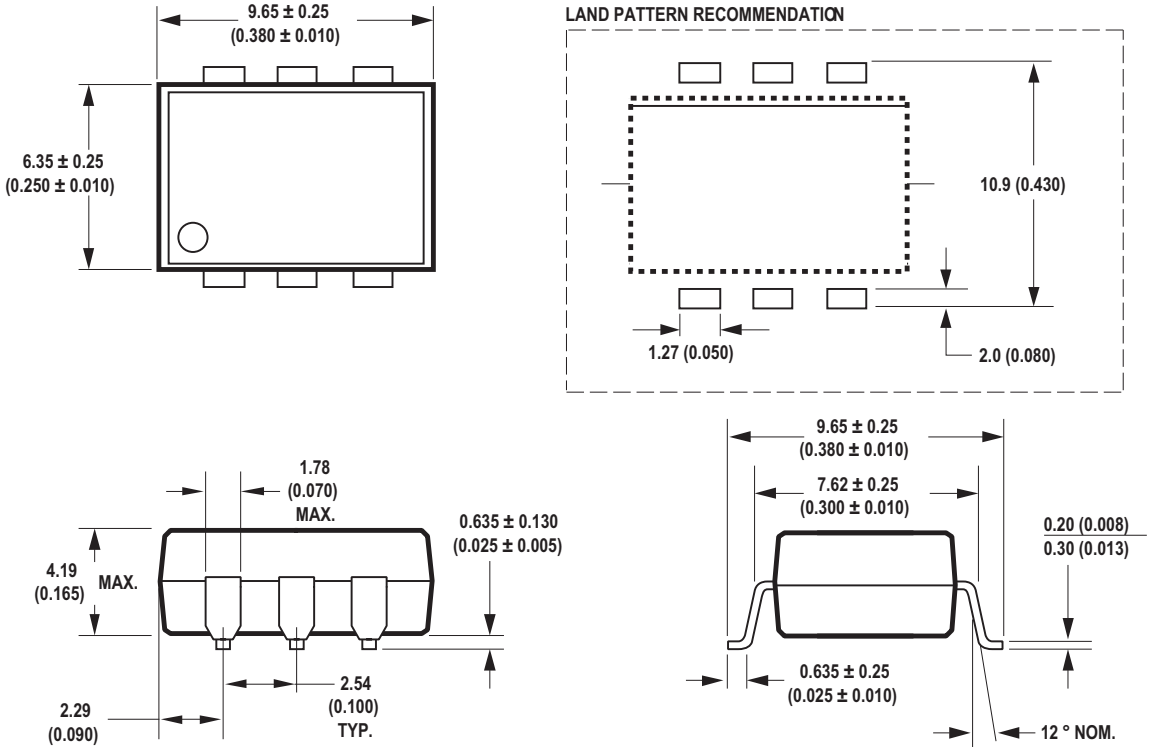
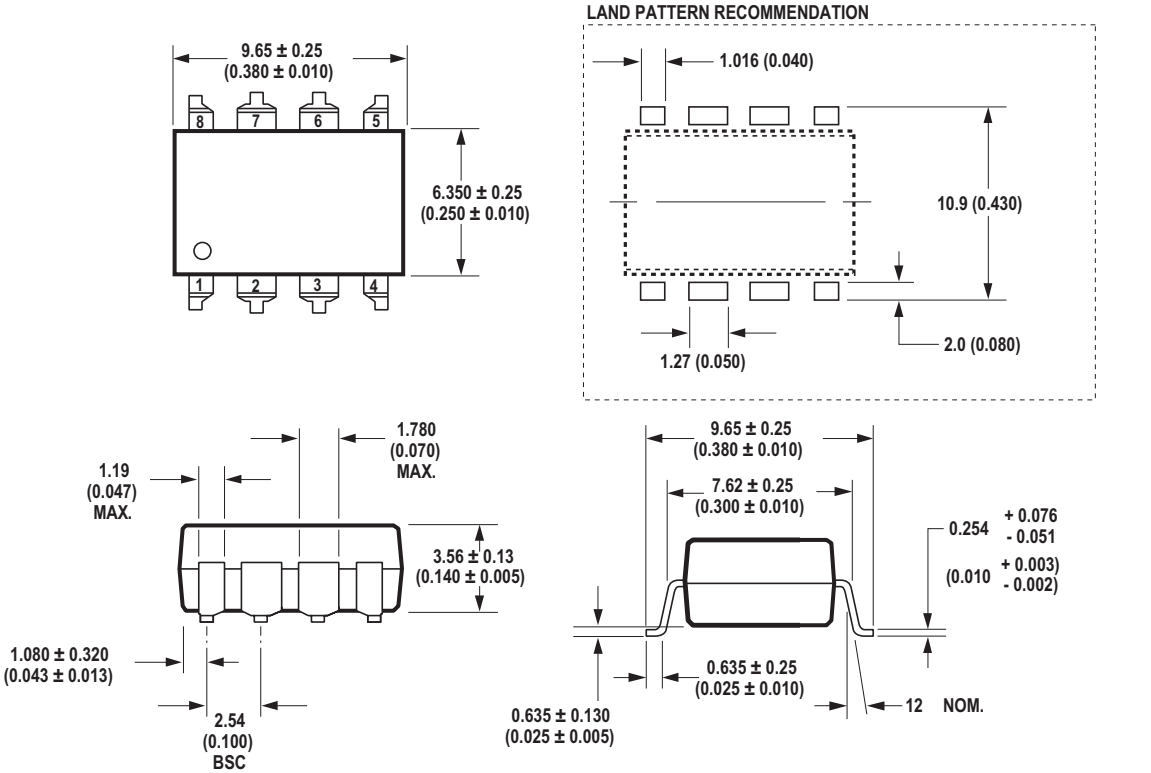



**Figure 5. 8-pin 400 mil package.**




NOTE: FLOATING LEAD PROTRUSION IS 0.25 mm (10 mils) MAX.

**Figure 6. 6-pin 300 mil package (Solid State Relay (Photo MOSFET))**




DIMENSIONS IN MILLIMETERS (INCHES).
LEAD COPLANARITY = 0.10 mm (0.004 INCHES).

NOTE: FLOATING LEAD PROTRUSION IS 0.25 mm (10 mils) MAX.

**Figure 7. 8-pin 300 mil package (Solid State Relay (Photo MOSFET))**

**Solder Reflow Temperature Profile**

1) One-time soldering reflow is recommended within the condition of temperature and time profile shown at right.
2) When using another soldering method such as infrared ray lamp, the temperature may rise partially in the mold of the device. Keep the temperature on the package of the device within the condition of (1) above.

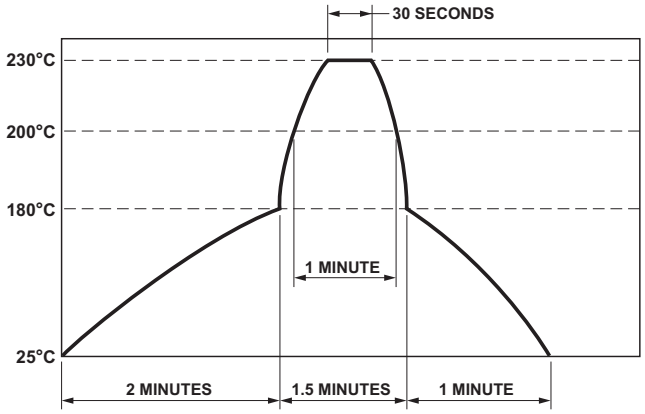



**Figure 8. Maximum solder reflow thermal profile for 4-pin 300 mil and 6-pin 300 mil packages.**

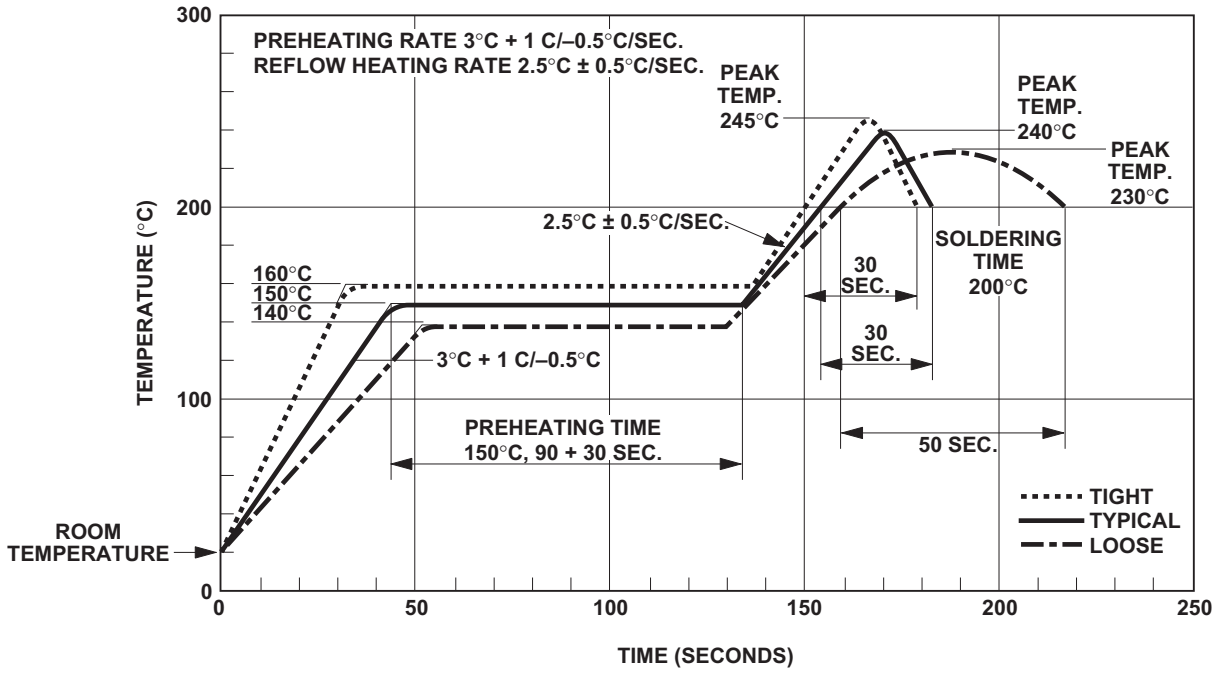
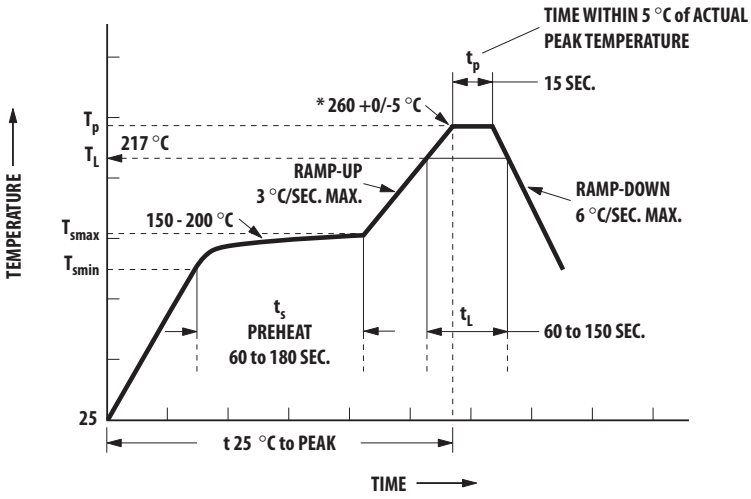



**Figure 9. Maximum solder reflow thermal profile for 8-pin 300 mil and 8-pin 400 mil packages.**

**Recommended Pb-Free IR Profile**




**NOTES:**
**THE TIME FROM 25 °C to PEAK TEMPERATURE = 8 MINUTES MAX.**
**$T_{smax}$ = 200 °C, $T_{smin}$ = 150 °C**

**NOTE: NON-HALIDE FLUX SHOULD BE USED.**

*** RECOMMENDED PEAK TEMPERATURE FOR WIDEBODY 400mils PACKAGE IS 245 °C**

**Figure 10. Recommended Pb-Free IR Profile**

For product information and a complete list of distributors, please go to our website: **www.avagotech.com**

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