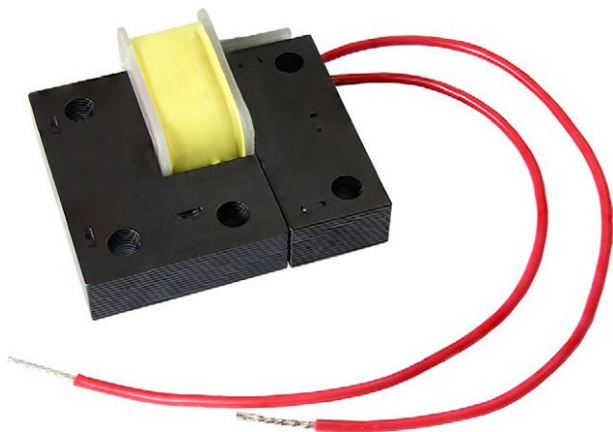


## Haptic Feedback Actuator



### FEATURES

- Solenoid construction provides high impulse vibration for clear tactile feedback in noisy environments
- This IHPT device can drive up to a 0.5 kg load to 6 g's of acceleration with a 12 V, 5 ms pulse using Vishay's spring return test fixture
- Standard lead termination is dipped 100 % tin solder; customer specific connectors available upon request
- Compact, two piece construction with mounting holes; stationary "U" core and moving "I-bar" for easy implementation in touch screen or touch button application
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### LINKS TO ADDITIONAL RESOURCES



### APPLICATIONS

- Industrial touch screens and displays for appliances, building automation and control, factory automation and control, and electronic point of sale
- Medical touch screens for human-machine interfaces for healthcare monitoring, diagnostic, surgical, and treatment equipment
- Switch / touch panels requiring tactile feedback upon actuation

### STANDARD ELECTRICAL SPECIFICATIONS

| PART NUMBER        | FORCE COEFFICIENT <sup>(1)</sup> | RESPONSE TIME TYP. (ms) | L <sub>0</sub> INDUCTANCE ± 20 % AT 1 kHz, 0.25 V, 0 A (mH) | DCR TYP. (Ω) | DCR MAX. (Ω) | DIELECTRIC WITHSTAND VOLTAGE COIL TO CORE (V <sub>DC</sub> ) |
|--------------------|----------------------------------|-------------------------|-------------------------------------------------------------|--------------|--------------|--------------------------------------------------------------|
| IHPT1411AFEBR73AB0 | 0.73                             | 5.0                     | 1.8                                                         | 0.95         | 1.09         | 150                                                          |

#### Notes

- All specifications are referenced to 25 °C ambient, and assume a 0.75 mm (0.030") gap
- Operating temperature range -40 °C to +105 °C
- The part temperature (ambient + temp. rise) should not exceed 105 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application
- Rated voltage: 16 V maximum
- <sup>(1)</sup> Applied force, in newtons, can be estimated by the following equation:  $F = \text{FORCE COEFFICIENT} \times I_{PK}^2$

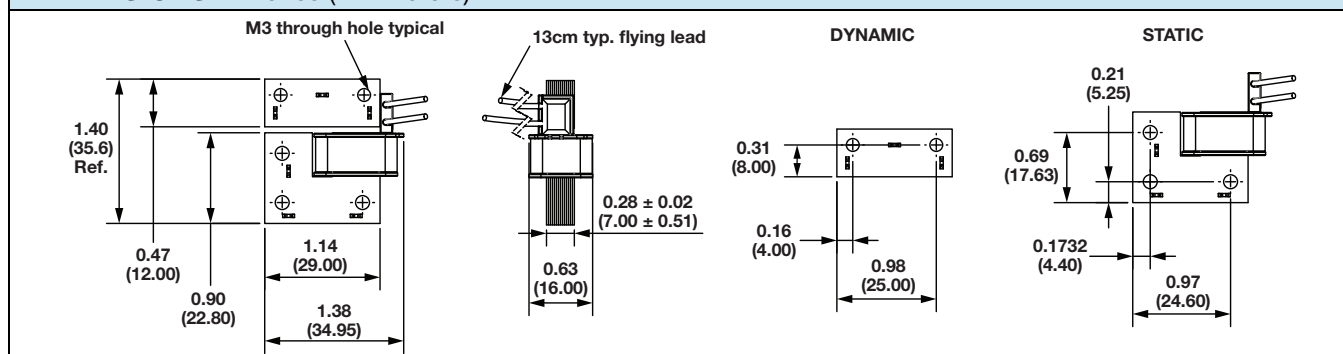
### MATERIAL

|        |                           |
|--------|---------------------------|
| Core   | Laminated steel           |
| Wire   | Copper, PU / PA insulated |
| Solder | Hot dip tin               |

### SOLDER COMPOSITION

|    |        |
|----|--------|
| Sn | 99.3 % |
| Cu | 0.7 %  |

### DIMENSIONS in inches (millimeters)





### DESCRIPTION

IHPT-1411AF-AB0

MODEL

R73

FORCE COEFFICIENT

EB

PACKAGE CODE

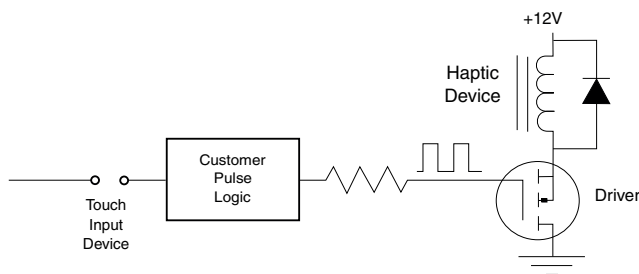
e3

JEDEC® LEAD (Pb)-FREE STANDARD

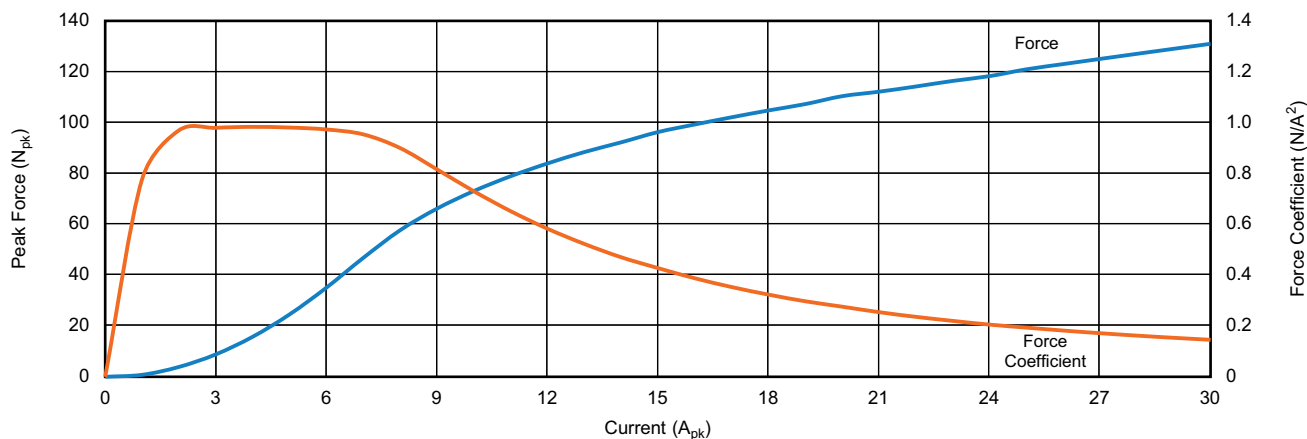
### GLOBAL PART NUMBER

|       |   |   |   |      |   |   |   |              |   |                   |   |        |   |   |   |   |   |
|-------|---|---|---|------|---|---|---|--------------|---|-------------------|---|--------|---|---|---|---|---|
| I     | H | P | T | 1    | 4 | 1 | 1 | A            | F | E                 | B | R      | 7 | 3 | A | B | 0 |
| MODEL |   |   |   | SIZE |   |   |   | PACKAGE CODE |   | FORCE COEFFICIENT |   | SERIES |   |   |   |   |   |

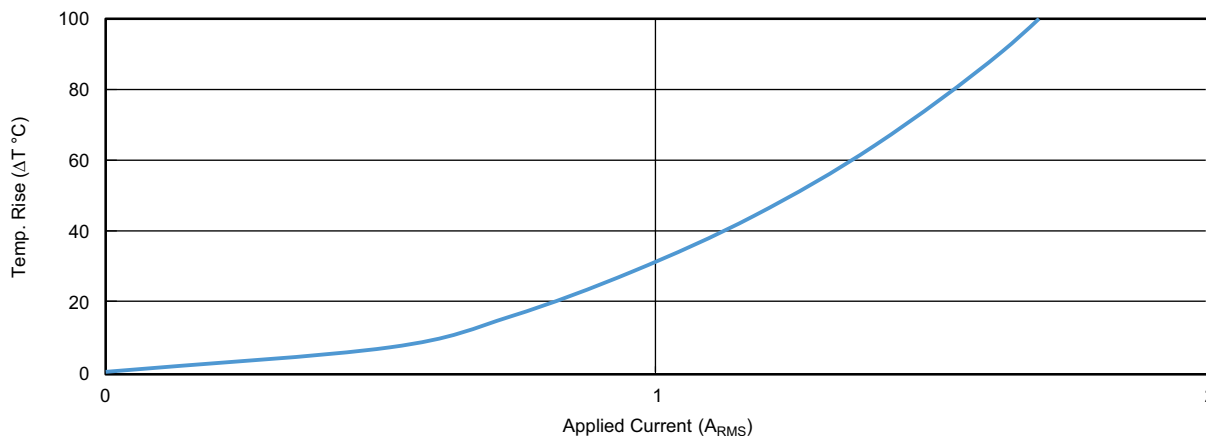
### TYPICAL APPLICATION



### IHPT PEAK FORCE RESPONSE (Typical)



### IHPT-1411AF-AB0





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