

STL 400 SERIES HIGH POWER LIMITERS

TECHNICAL FEATURE

FEATURES

- EW and Commercial Applications
- 2 – 100 Watt Power Handling Capability
- Low Insertion Loss
- Low VSWR
- Coaxial Design
- Drop-in Design
- Replaceable Connectors
- Reliability Screening



DESCRIPTION/APPLICATIONS

Crane provides the Model STL400 Series passive high power limiters for the protection of microwave circuits and receivers. All models are available in both hermetically sealed coaxial and drop-in packages. A unique design approach offers wideband performance and high reliability in a compact package.

DESCRIPTION/APPLICATIONS

The STL400 Series provides a higher limiting threshold and faster recovery characteristics as well as higher isolation (lower leakage) with higher power handling.

Crane is qualified as a MIL-I-45208 Quality Systems facility by the DOD and lending foreign and domestic military OEM's. MIL-STD-883 screening is available in-house at additional cost.

PERFORMANCE @ 25°C

| Model | Frequency (GHz) | Insertion ¹ Loss (dB) Max. | VSWR ¹ Max. | Limiting Threshold (dBm) Typ. | Flat Leakage (dBm) Max. | Max. Power Handling CW Power (Watts) | Max. Power Handling, Peak Power (Watts) 1μsec, .001 DC | Recovery Time (nsec) max. | Outlines Available |
|--------|-----------------|---------------------------------------|------------------------|-------------------------------|-------------------------|--------------------------------------|--|---------------------------|--------------------|
| STL410 | .350-500 | 0.5 | 2.0:1 | 5 | 20 | 2 | 200 | 100 | R, A5, B3 |
| STL411 | 2.0-4.0 | 1 | 2.0:1 | 5 | 17 | 10 | 200 | 150 | R, A5, B3 |
| STL412 | 4.0-8.0 | 1.8 | 2.0:1 | 7 | 17 | 20 | 500 | 100 | R, A5, B3 |
| STL413 | 8.0-16.0 | 2.4 | 2.0:1 | 10 | 17 | 30 | 500 | 200 | R, A5, B3 |
| STL418 | 8.0-16.0 | 2.6 | 2.0:1 | 20 | 30 | 30 | 500 | 200 | R, A5, B3 |
| STL450 | .5-1.5 | 1.8 | 2.0:1 | 6 | 19 | 100 | 1000 | 10,000 | R, A5 |

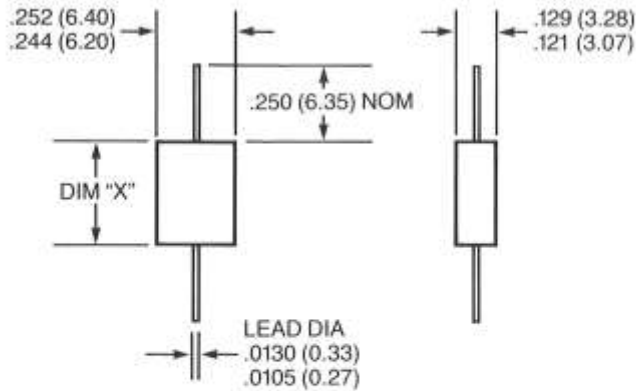
Notes:

1. Measured at 0 dBm.
2. All conditions at +25°C. Incident power linearity derate over temperature up to +150° C.
3. Operating temperature: -54°C to +85°C.
4. Crane uses an HP8510 ANA and can provide phase matched limiters at any fixed frequency and temperature to ±10°.

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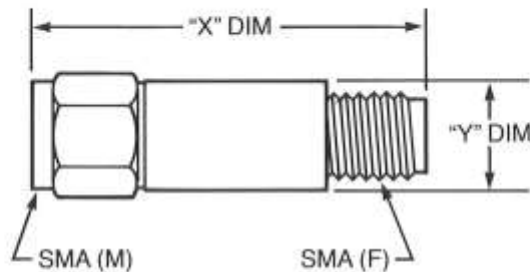
OUTLINE DRAWING

Case Style "A"



| DASH NO. | DIM "X"—INCHES/MILLIMETER | | | |
|----------|---------------------------|-------|---------|-------|
| | MINIMUM | | MAXIMUM | |
| | IN | MM | IN | MM |
| A4 | .327 | 8.31 | .333 | 8.46 |
| A5 | .527 | 13.39 | .533 | 13.54 |

Case Style "B"



| DASH NO. | DIM "X"—INCHES/MILLIMETER | | | | DIM "Y"—INCHES/MILLIMETER | | | |
|----------|---------------------------|-------|---------|-------|---------------------------|------|---------|------|
| | MINIMUM | | MAXIMUM | | MINIMUM | | MAXIMUM | |
| | IN | MM | IN | MM | IN | MM | IN | MM |
| B1 | 1.01 | 25.65 | 1.05 | 26.67 | .310 | 7.87 | .335 | 8.51 |
| B2 | 1.14 | 28.96 | 1.18 | 29.97 | .310 | 7.87 | .335 | 8.51 |
| B3 | 1.29 | 32.77 | 1.33 | 33.78 | .310 | 7.87 | .335 | 8.51 |