3A1 Hub Dicing Blade Program

High-Precision Slicing – Electronics
Worcester, MA – U.S.A.
Outline

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Application Information

Typical operating conditions for wafer dicing:

- RPM: 25,000 - 40,000
  (Maximum blade operating speed: 45,000 RPM’s)
- Feed rate: 50-200mm/s [2-8 in./sec.]
- Materials: Silicon, GaAs, SiGe, etc.
- Depth of cut: 100µm to 1mm (0.004” to 0.040”)
- Mounting: Tape.
- Machine: Disco, K&S, TSK, etc.

Disco dicing saw.
K&S dicing saws.
3A1 dicing blade in action.
Standard Specification Availability

Bond is electroformed nickel.

Several grit sizes are available:

> PD-1-2/3: 1-2/3µm diamond, standard bond
> PD-1/2: 1/2µm diamond, standard bond
> PD-2/4: 2/4µm diamond, standard bond
> PD-2/6: 2/6µm diamond, standard bond
> PD-3/6: 3/6µm diamond, standard bond

*Standard specification for GaAs dicing*

*Standard specification for silicon dicing*
### Standard Size Availability

#### Key blade dimensions:
- OD: 55.56mm [2.187”]
- ID: 19.05mm [3/4”]
- Thickness and exposure code (X/Y) per adjacent table.

#### Complete blade description:
Item number if available, X/Y Code – Bond – Grit

**Example:**

1234567-A 40/25-PD-3/6

<table>
<thead>
<tr>
<th>Thickness &quot;W&quot;</th>
<th>Exposure &quot;X&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>0.015 0.020 0.025 0.030 0.035 0.040 0.045 0.050 0.055</td>
</tr>
<tr>
<td>mm</td>
<td>0.38 0.51 0.64 0.76 0.89 1.02 1.14 1.27</td>
</tr>
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<td>0.51 0.64 0.76 0.89 1.02 1.14 1.27 1.40</td>
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Blueprint

Note: Kerf width is generally 1.10 to 1.25 times blade thickness.
Packaging

Please note:

> Blades are individually packaged in clear plastic cases.
> Each dicing blade box holds 4 individually packaged blades.
> Therefore, minimum order quantity is 4 and orders should be in multiple of 4. This applies to test orders as well.
> Pricing is FOB Worcester, MA – USA.
> Pricing applies to all standard sizes and specifications described earlier.
Contact and Ordering Information

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