

<b>Surface Mount MCF (Monolithic Crystal Filter)</b>		<b>MERCURY</b> Since 1973
<b>45 MHz 5x7x1.4 mm Model "45MQ15A"</b>		

- Thin and light weight; excellent shock and vibration resistance
- Suitable for automatic pick and place; Solder reflow capable
- Specifically designed for mobile, wireless communications, pagers, cellular and cordless phones.



RoHS Compliant Product  
by Mercury

## SPECIFICATIONS

<b>Model</b>	<b>45MQ15A</b>
<b>Package ③</b>	"Q" package, 5x7x1.4 mm Ceramic SMD
<b>Number of Poles ⑤</b>	2 Poles
<b>Center Frequency ①:</b>	45 MHz
<b>Pass Bandwidth ④</b>	± 7.5 kHz min. at 3 dB
<b>Stop Bandwidth</b>	±25 kHz max. at 15 dB
<b>Guaranteed Attenuation</b>	-910 KHz min. at 70 dB
<b>Ripple</b>	1.0 dB max.
<b>Insertion Loss</b>	2.0 dB max.
<b>Spurious</b>	10 dB min.
<b>Terminating Impedance</b>	560 Ω // 6.0 pF
<b>Operating Temperature</b>	-20°C to +70°C
<b>Storage Temperature</b>	-40°C to +85°C

## HOW TO ORDER:

<b>Part Number:</b> Please specify <b>45MQ15A</b>				
45	M	Q	15	A
①	②	③	④	⑤
<b>①:</b> Center Frequency Code "45" for 45 MHz <b>②:</b> MCF Series <b>③:</b> Package code "Q" for 5x7x1.4 mm <b>④:</b> 3dB Bandwidth "15" for ± 7.5 kHz min. at 3 dB <b>⑤:</b> "A" for 2 poles				

**MERCURY** [www.mercury-crystal.com](http://www.mercury-crystal.com)

Taiwan: TEL (886)-2-2406-2779, FAX (886)-2-2496-0769, e-mail: [sales-tw@mercury-crystal.com](mailto:sales-tw@mercury-crystal.com)

U.S.A.: TEL (1)-909-466-0427, FAX (1)-909-466-0762, e-mail: [sales-us@mercury-crystal.com](mailto:sales-us@mercury-crystal.com)

MERCURY	Page 1 of 3	Date: July 1, 2006	Rev. 0
---------	-------------	--------------------	--------

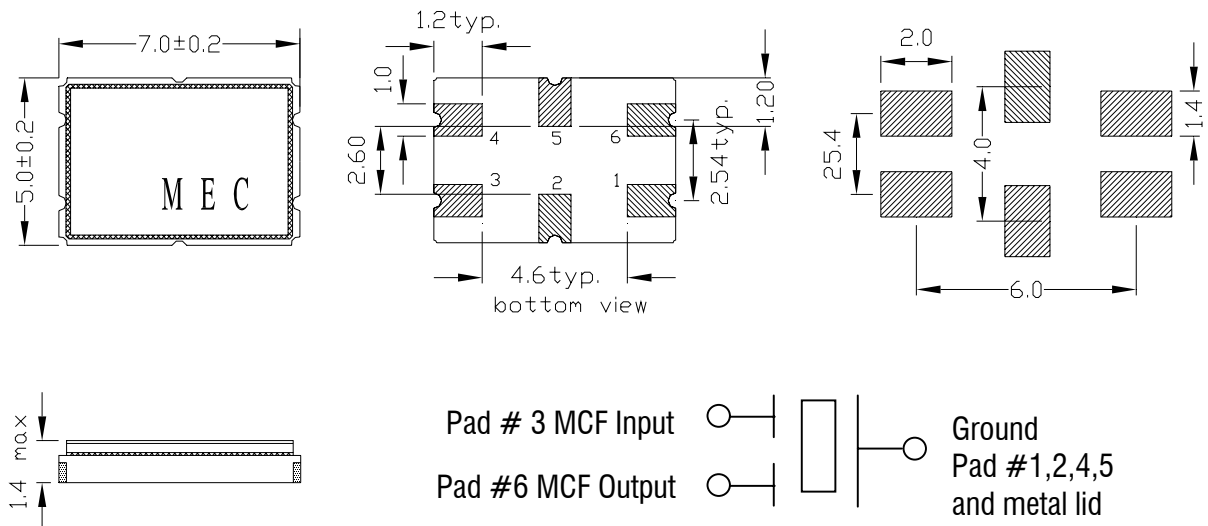
<b>Surface Mount</b> <b>45 MHz 5x7x1.4 mm</b>	<b>MCF (Monolithic Crystal Filter)</b> <b>Model "45MQ15A"</b>		<b>MERCURY</b> Since 1973
--	--	---	------------------------------

**ENVIRONMENTAL AND MECHANICAL SPECIFICATIONS**

<b>Green Requirement</b>	RoHS compliant and Pb (lead free)
<b>Gross Leak</b>	60 sec min at +125°C in D.I. water or fluorocarbon fluid
<b>Fine Leak</b>	< 2 x10 <sup>-8</sup> atm cc /sec by helium leak check
<b>Shock</b>	Half sine wave acceleration of 100G peak amplitude for 11 m. sec. duration, 3 cycles each plane.
<b>Vibration</b>	±5 ppm max. Frequency:10 to 55 Hz, amplitude: 1.5 mm or 10 Gs rms. Duration: 6 hours.
<b>Drop Test</b>	Free drop onto hard wood board at 75 cm, 3 radon drops.
<b>Solderability</b>	MIL-STD-883, Method 2003
<b>Humidity</b>	After 48 hours at 85°C, 85% relative humidity non-condensing
<b>Thermal Shock</b>	Temperature cycling: Exposed at -40°C for 30 minutes then to +85°C for 30 minutes for duration of 5 days
<b>Marking Permanency</b>	MIL-STD-202, Method 215. Laser engraved.

**PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT**

Unit: mm

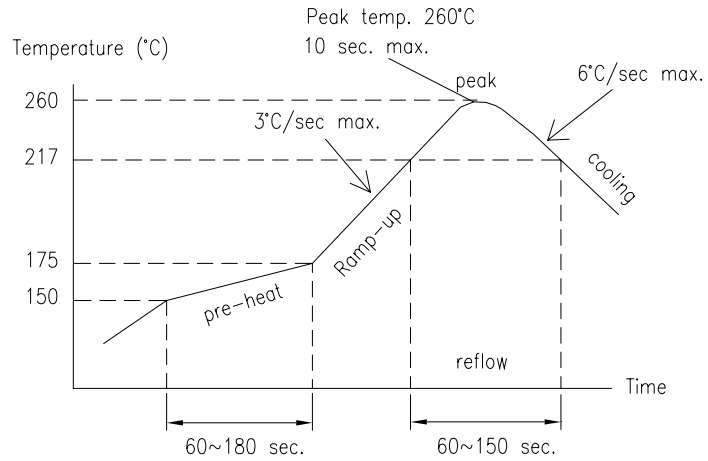


**Surface Mount MCF (Monolithic Crystal Filter)**  
**45 MHz 5x7x1.4 mm Model "45MQ15A"**



**MERCURY**  
 Since 1973

**RECOMMENDED REFLOW SOLDERING PROFILE:**



**TAPE AND REEL SPEC.:** 16 mm tape compliant to EIA-481-A; 1000 pcs per reel.

