

FEATURES

- HIGH RELIABILITY FOR LOW COST
- CHEAP REPLACEMENT FOR SMD-CRYSTALS IN PLASTIC PACKAGES
- EXTENDED TEMPERATURE RANGE TO -40/+125°C
- TUNABLE WITH EXTERNAL CAPACITY
- CHEAPEST AVAILABLE SMD-CRYSTAL WITH 4 SOLDER PADS
- EXCELLENT CLOCK SIGNAL GENERATOR FOR CPU'S
- QUALIFIED FOR AUTOMOTIVE APPLICATIONS
- EPSON MA406 AND MA506 PIN OUT COMPATIBLE

PETERMANN

TECHNIK

Time & Frequency Components



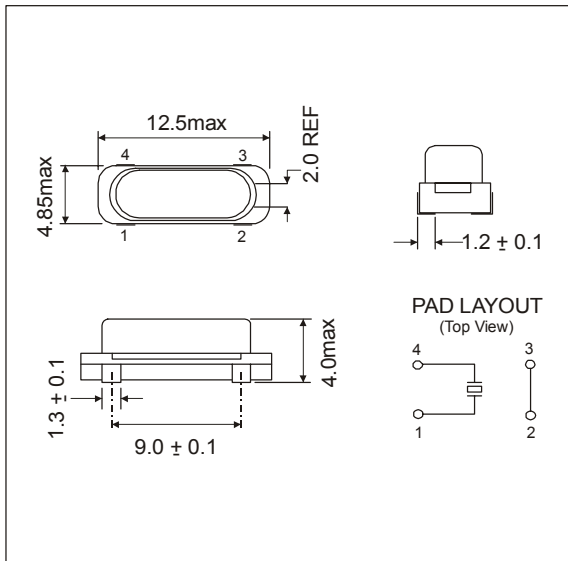
SERIES		HC-49/US-3SMD / HC-49/US-4SMD / HC-49/US-5SMD		
FREQUENCY		3.579 ~ 30.0 MHz	20.0 ~ 40.5504 MHz	24.0 ~ 70.0 MHz
MODE OF VIBRATION		AT-FUNDAMENTAL	BT-FUNDAMENTAL	3rd OVERTONE
RESONANCE RESISTANCE		180 ~ 30 Ω MAX.	40 Ω MAX.	80 Ω MAX.
FREQUENCY TOLERANCE AT 25°C		+10 PPM ~ +50 PPM		
TEMPERATURE RANGE		0/+50°C ~ -40/+125°C		
TEMPERATURE STABILITY	+10 PPM	0+50°C / -10/+60°C / 0/+70°C		
	+15 PPM	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C		
	+20 PPM	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C		
	+30 PPM	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C		
	+50 PPM	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C / -40/+125°C		
	+100 PPM	0+50°C / -10/+60°C / 0/+70°C / -20/+70°C / -40/+85°C / -40/+125°C		
LOAD CAPACITANCE		8 ~ 50 PF OR SERIES		
SHUNT CAPACITANCE		7 PF MAX.		
DRIVE LEVEL		100 μW typical (0.01 mW ~ 2 mW possible)		
AGING		+3 ~ +5 PPM PER YEAR		
INSULATION RESISTANCE		>500 MΩ DC/100V +10%		
STORAGE TEMPERATURE		-55/+125°C		
PACKAGE		TAPE AND REEL (1.000 PCS PER REEL)		
OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION				

PART NUMBERING SYSTEM

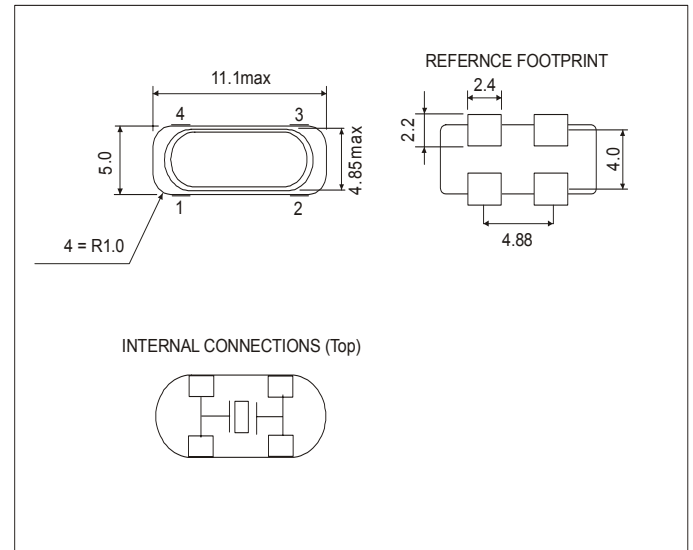
EXAMPLE	HC-49/US-3SMD 27.000 MHz 30/50/-40+125/20pF
---------	---

TYPE	REQUIRED TYPE
FREQUENCY	IN MHZ
FREQUENCY TOLERANCE AT 25°C	REQUIRED VALUE
TEMPERATURE STABILITY	REQUIRED VALUE
TEMPERATURE RANGE	REQUIRED VALUE
LOAD CAPACITANCE	REQUIRED VALUE

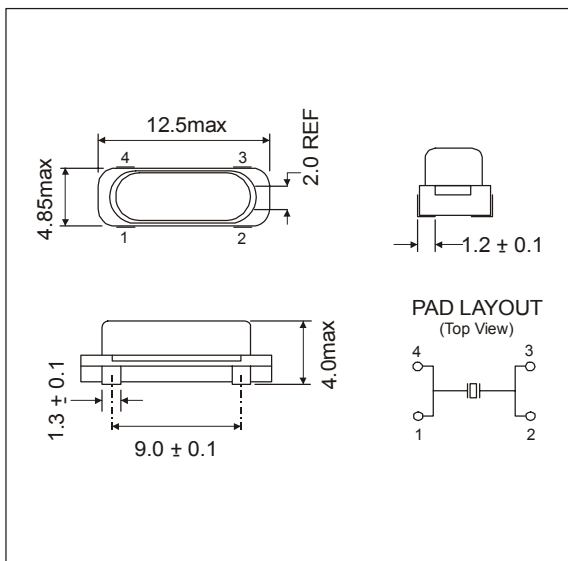
OUTLINE DRAWING OF HC-49/US-3SMD



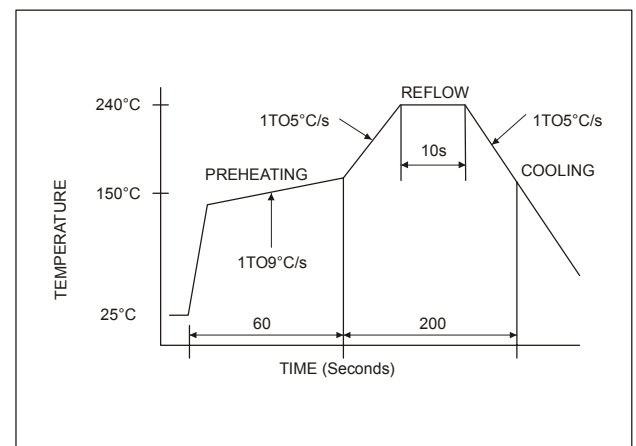
OUTLINE DRAWING OF HC-49/US-5SMD



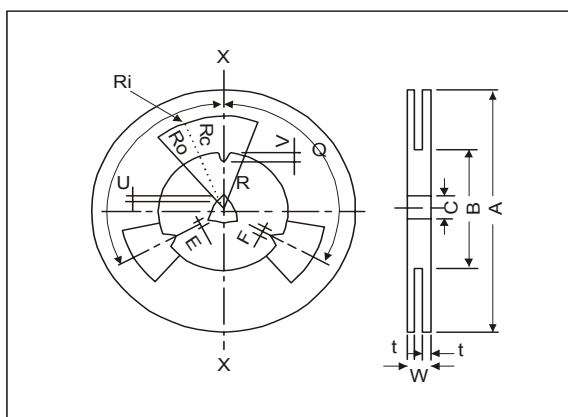
OUTLINE DRAWING OF HC-49/US-4SMD



REFLOW SOLDER PROFILE



REEL SPECIFICATION



Description			Symbol	Dimensions
Flange	Diameter		A	Ø330 ± 2.0
	Thickness		t	2.4 ± 0.2
	Width Between Flanges		W	24.4 ^{+2.0} ₋₀
Center Core	Outline Diameter		B	Ø100 ± 2.0
	Center Core Slit	Width	F	2.3 ± 1.0
		Deep	V	6 ± 1.0
		Position	Q	120° ± 3°
	Spindle Diameter		C	Ø13 ± 0.5
	Key Seats	Width	E	2.5 ^{+0.5} ₋₀
		Deep	U	5 ± 0.5
		Position	Q	120° ± 3°
Fenestra	Outline Radius		R ₀	R90 ± 1.0
	Inline Radius		R _i	R40 ± 1.0
	Rounded Corners		R _c	R5
	Open Angle		R	40° ± 2°