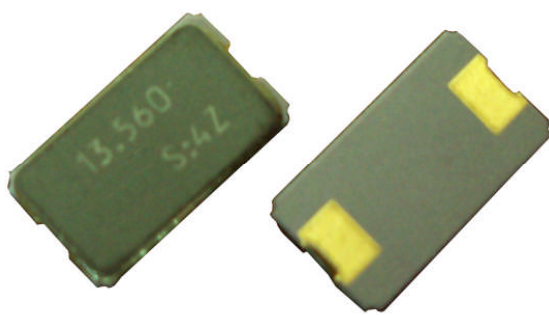


Quartz Crystal Series	Features ◆ RoHS Compliant ◆ Ceramic/metal package	
8045A		

Electrical Specifications

Item	Specifications	Remarks
Nominal Frequency Range	4.000MHz to 48.000MHz	Fund.; AT-Cut
	30.000MHz to 125.000MHz	3 rd O.T.;AT-Cut
Frequency Tolerance	±20ppm(Standard) at 25°C±3°C	Others are offered
Load Capacitance	Fund.:10pF to ∞,O.T.:5pF to ∞	Please specify
Series Resistance	As ESR table	
Shunt Capacitance	7pF Max	
Drive Level	10μW to 100μW	1000μW Max
Operating Temperature	-20°C to +70°C (Standard)	Others are offered
Storage Temperature	-55°C to +125°C / -65°C to +185°C	
Stability vs. Temperature	±20ppm(Standard)	Others are offered
Insulated Resistance	500MΩ	Minimum
Aging	±2ppm/year	Maximum

ESR(Series Resistance)

Frequency(MHz)	Mode	Ohm Max	Frequency(MHz)	Mode	Ohm Max
4.0~15.9	Fund.;AT	80	30.0~79.9	3 rd O.T.;AT	80
16.0~48.0	Fund.;AT	40	80.0~125.0	3 rd O.T.;AT	60

Stability vs. Temperature

◆ Standard		1	2	3	5	6	8	Remarks
◇ Please specify		±10ppm	±20ppm	±30ppm	±50ppm	±15ppm	±100ppm	
B	-10°C to +60°C	◇				◇		
C	-20°C to +70°C	◇	◆	◇	◇	◇	◇	Standard
D	-40°C to +85°C		◇	◇	◆	◇	◇	
E	-50°C to +150°C				◇	◇	◆	

Ordering Information

Q	R	Type	Pin	XX.XXXX	M	Mode	CL pF	Freq.Tolerance at 25°C	Operating Temp.	Stability Vs.Temp.	Option
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Q:Quartz 84: A:2 Center frequency M: F:Fund.;AT See ±10ppm to See Table See Table F:Lead Free
 R:Resonator 8.0*4.5mm 4.0 to 125.0MHz MHz O: 3rd O.T.;AT Table ±100ppm See Table See Table Blank:T&R

Example:QR84A13.5600MFT1C1F

(Crystal,SMD8.0*4.5mm,13.5600MHz,4pins,12pF,+/-10ppm,-20 to +70deg,+/-10ppm.T&R,Lead free)



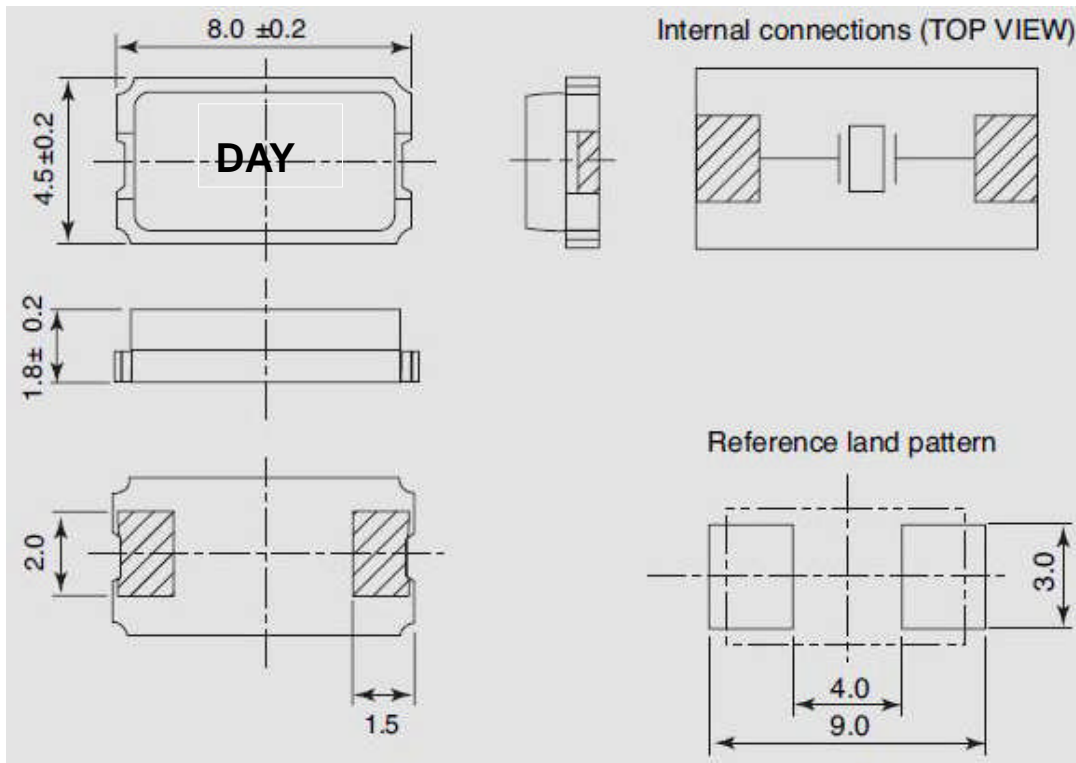
Quartz Crystal Series

8045A

Load Capacitance Codes

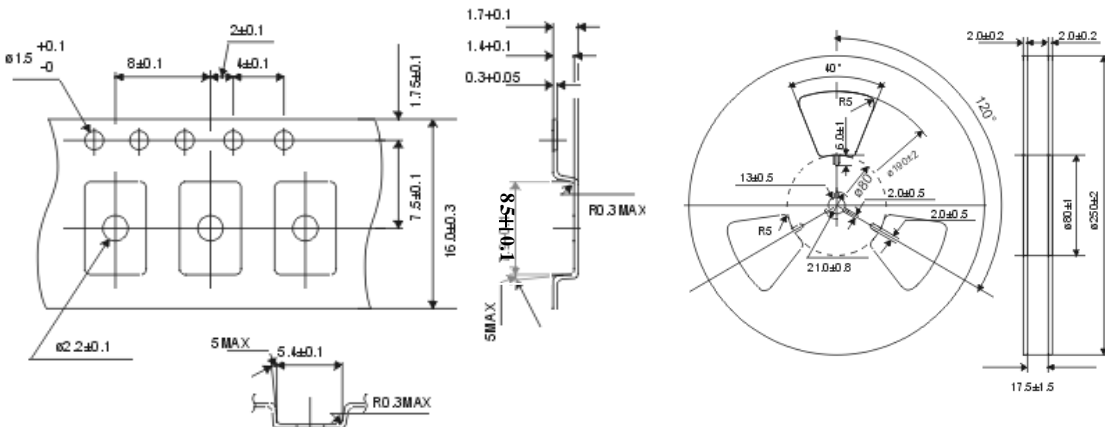
7pF:	E	8pF:	F	9pF:	B	10pF:	R
12pF:	T	15pF:	H	16pF:	I	18pF:	J
20pF:	K	22pF:	L	25pF:	G	27pF:	M
30pF:	N	32pF:	P	33pF:	W	Series:	S

Dimensions



Unit:mm

Taping Specification



1000pcs/Reel

Quartz Crystal Series

8045A

Reflow Soldering Profile

