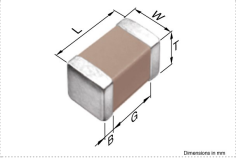
# Multilayer Ceramic Chip Capacitors



## CGA4J2X8R1H683K125AA

RoHS | REACH SVHC-Free | Halogen Free | Lead Free

| | |
|---|---|
| **TDK item description** | CGA4J2X8R1H683KT**** |
| **Applications** | Automotive Grade |
| **Feature** | 150°C High Temperature Application<br>AEC-Q200 AEC-Q200 |
| **Series** | CGA4(2012) [EIA 0805] |
| **Status** | Production (Not Recommended for New Design) |




Images are for reference only and show exemplary products.

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### Documents

- Catalog
- Specification
- RoHS Certificate
- SVHC/REACH Certificate
- Characterization Sheet
- Promotion Video
- Sample Kits

### Technical Support Tools

- S-parameter
- SPICE Netlist (Simple)
- SPICE Netlist (Precision)
- Equivalent Circuit Model
- DC Bias/Superimpotision Model (HSPICE)

| Size | |
|---|---|
| Length(L) | 2.00mm ±0.20mm |
| Width(W) | 1.25mm ±0.20mm |
| Thickness(T) | 1.25mm ±0.20mm |
| Terminal Width(B) | 0.20mm Min. |
| Terminal Spacing(G) | 0.50mm Min. |
| Recommended Land Pattern (PA) | 1.00mm to 1.30mm(Flow Soldering)<br>0.90mm to 1.20mm(Reflow Soldering) |
| Recommended Land Pattern (PB) | 1.00mm to 1.20mm(Flow Soldering)<br>0.70mm to 0.90mm(Reflow Soldering) |
| Recommended Land Pattern (PC) | 0.80mm to 1.10mm(Flow Soldering)<br>0.90mm to 1.20mm(Reflow Soldering) |

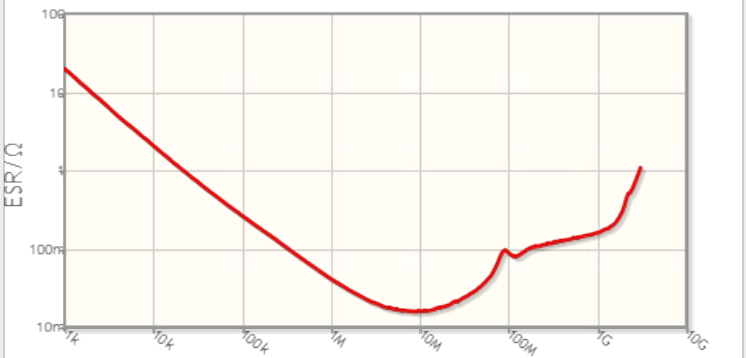
| Electrical Characteristics | |
|---|---|
| Capacitance | 68nF ±10% |
| Rated Voltage | 50VDC |
| Temperature Characteristic | X8R(±15%) |
| Dissipation Factor (Max.) | 3% |
| Insulation Resistance (Min.) | 7352MΩ |

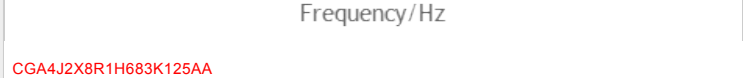
| Other | |
|---|---|
| Soldering Method | Flow<br>Reflow |
| AEC-Q200 | Yes |
| Packing | Blister (Plastic)Taping [180mm Reel] |
| Package Quantity | 2000pcs |

## Characteristic Graph (This is reference data, and does not guarantee the products characteristics.)

### Impedance

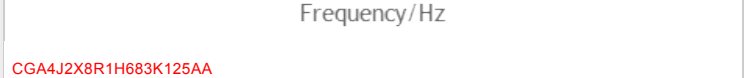

### ESR






CGA4J2X8R1H683K125AA

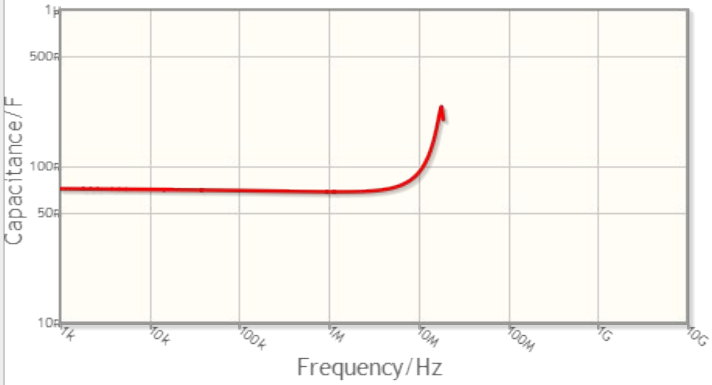
Change settings




CGA4J2X8R1H683K125AA

Change settings

## Capacitance

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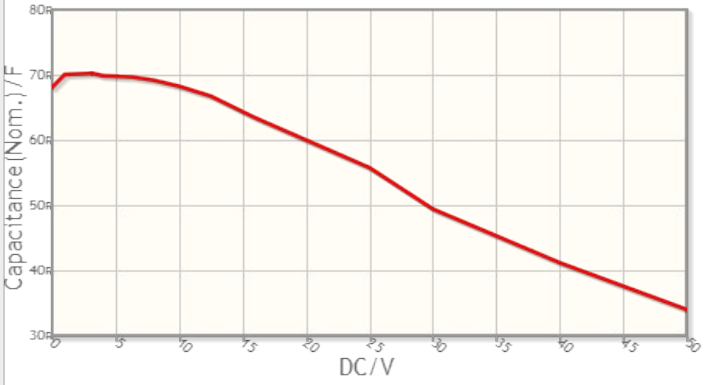
## DC Bias Characteristic

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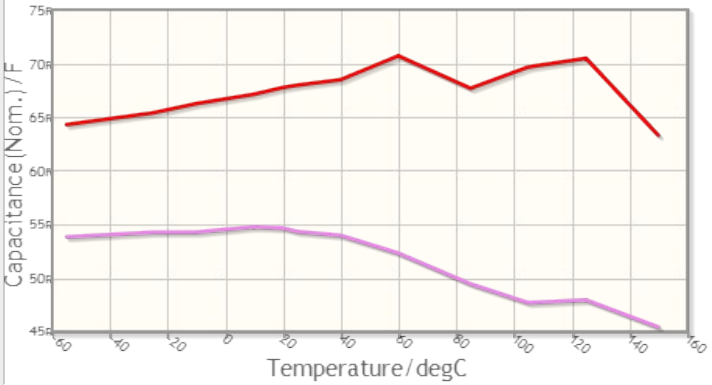
## Temperature Characteristic




CGA4J2X8R1H683K125AA(No Bias)

CGA4J2X8R1H683K125AA(DC Bias = 25V )

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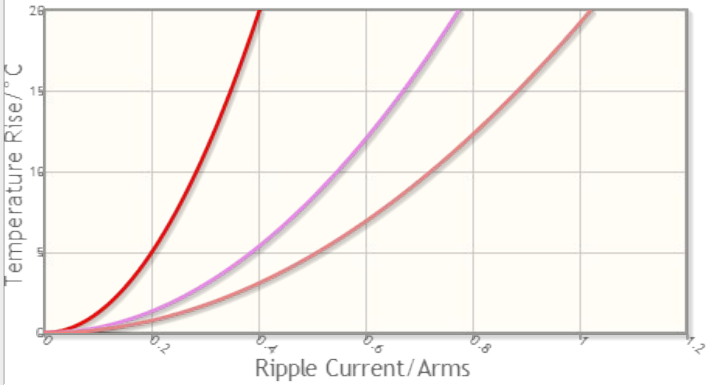
## Ripple Temperature Rising




CGA4J2X8R1H683K125AA(100 kHz)

CGA4J2X8R1H683K125AA(500 kHz)

CGA4J2X8R1H683K125AA(1 MHz)

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