

Table 2-2: PCB Capacitor Specifications

Ideal Value	Value Range <sup>(1)</sup>	Body Size <sup>(2)</sup>	Type	ESL Maximum	ESR Range <sup>(3)</sup>	Voltage Rating <sup>(4)</sup>	Suggested Part Number
100 $\mu$ F	$C > 100 \mu\text{F}$	1210	2-Terminal Ceramic X7R or X5R	5 nH	$10 \text{ m}\Omega < \text{ESR} < 60 \text{ m}\Omega$	6.3V	GRM32ER60J107ME20L
4.7 $\mu$ F	$C > 4.7 \mu\text{F}$	0805	2-Terminal Ceramic X7R or X5R	2 nH	$10 \text{ m}\Omega < \text{ESR} < 60 \text{ m}\Omega$	6.3V	
0.47 $\mu$ F	$C > 0.47 \mu\text{F}$	0204 or 0402	2-Terminal Ceramic X7R or X5R	1.5 nH	$10 \text{ m}\Omega < \text{ESR} < 60 \text{ m}\Omega$	6.3V	

**PCB Capacitor Substitution Rules:**

1. Values can be larger than specified.
2. Body size can be smaller than specified.
3. ESR must be within the specified range.
4. Voltage rating can be higher than specified.