

Minitek® 1.80mm Wire-to-Board

MORE RELIABILITY LOW MATING FORCE AUTOMOTIVE GRADE CONNECTOR SYSTEM

Minitek® 1.8mm Wire-To-Board connector's compact design address the growing demand for miniaturizing automotive application market. The connector is double row offering four coding with different colors.

The connector has nominal current carrying capacity of 3A and cable wire gauge from 22AWG to 26 AWG. Minitek® 1.80mm Wire-to-Board is available in 10 to 40 positions double row with vertical and horizontal TH and SMT configurations.

- USCAR-2 V2 compatible
- Reflow tin plated reduce mating force
- Four different coding with different colors visual mismatching
- Position from 10 to 40
- Terminal Position Assurance (TPA)
- Connector Position Assurance (CPA)

FEATURES

- Reflow Tin plating process for terminal
- Current rating 3A with each contact
- Terminal-Position-Assurance (TPA)
- Four different coding with different colors
- Connector positioning assurance (CPA)
- Wire gauge up to 22AWG



TARGET MARKETS



BENEFITS

- Low mating and un-mating force
- Meet higher power Amps performance
- Ensures proper terminal insertion position and retention
- Visual and mechanical mismatching prevention system
- Ensures that connectors are properly mated and locked together
- Meet wide gauge application requirement

TECHNICAL INFORMATION

MATERIAL

- Board Connector: Copper alloy
- Housing: High Temperature UL 94V-0
- Crimping Terminal: Phosphor bronze alloy/bass (tin plated)

ELECTRICAL PERFORMANCE

- Voltage Rating: 48V AC/DC
- Insulation Resistance: 100M Ω min.
- Contact Resistance: 25m Ω max. (initial)
- Current Rating: 3A
- Low Level Contact Resistance: < 15m Ω
- Dielectric Withstand Voltage: 1000V AC
- Temperature Rise: +55°C max. for 5.0A

MECHANICAL PERFORMANCE

- Durability: 10 cycles (tin plated)
- Mating/Un-mating Force: 75N max.
- Terminal Insertion Force: <5N max./pin
- Terminal Retention Force: 20N min. (before testing). 40N min. (after testing)

ENVIRONMENTAL

- Operating Temperature Range: -40°C to +105°C

APPROVALS AND CERTIFICATIONS

- UL E66906

SPECIFICATIONS

- Product Specification: GS-12-1535
- PCB Termination: 1.6mm and 2.0mm
- Packaging Specification: GS-14-2668
- Hand Tool Part Number: 10159164-001LF
- Application Specification: GS-20-0594

PACKAGING

- PCB Header: Tape and reel or Tray
- Receptacle Housing: Tray
- Crimping Terminal: Reel

TARGET MARKETS/APPLICATIONS

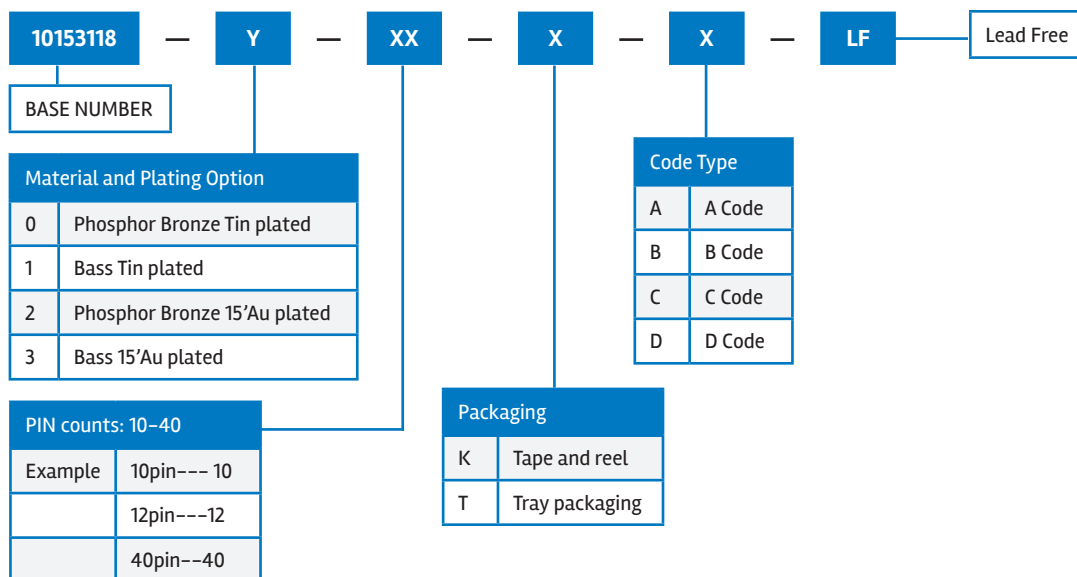


BMS (Battery management System)
OBC (On board Charge)
MCU (Micro Control system)
Gateway
Lighting
ADAS (Advanced Driving Assistance System)
RADAR

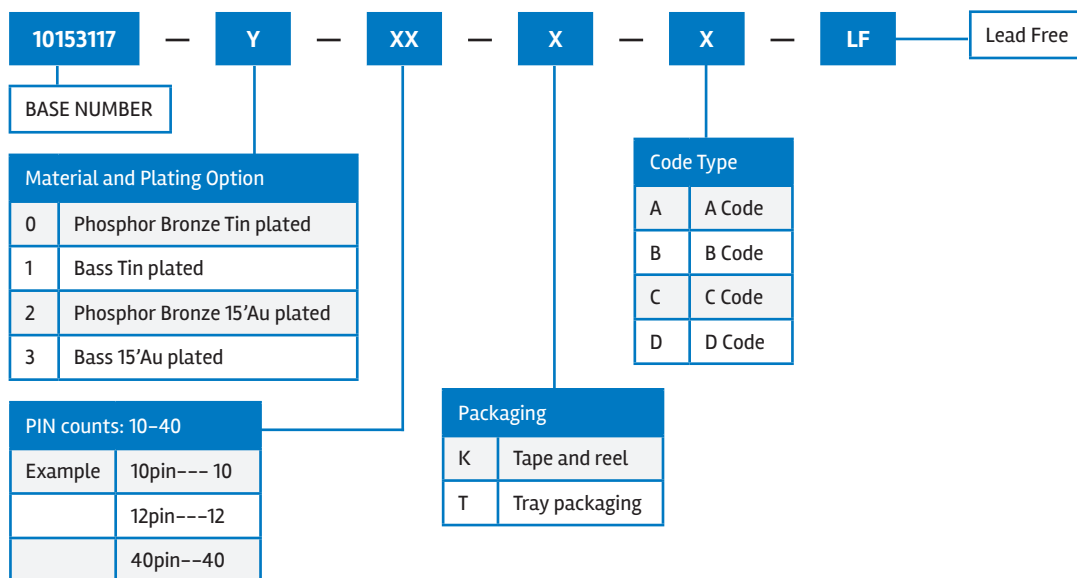


Robotics

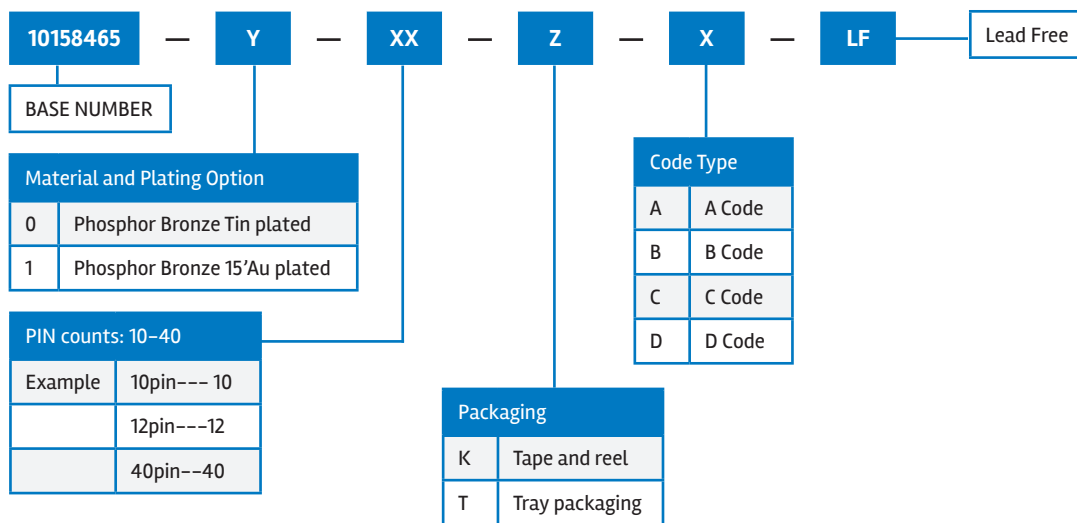
PART NUMBER SELECTOR – DOUBLE ROW R/A_TH HEADER



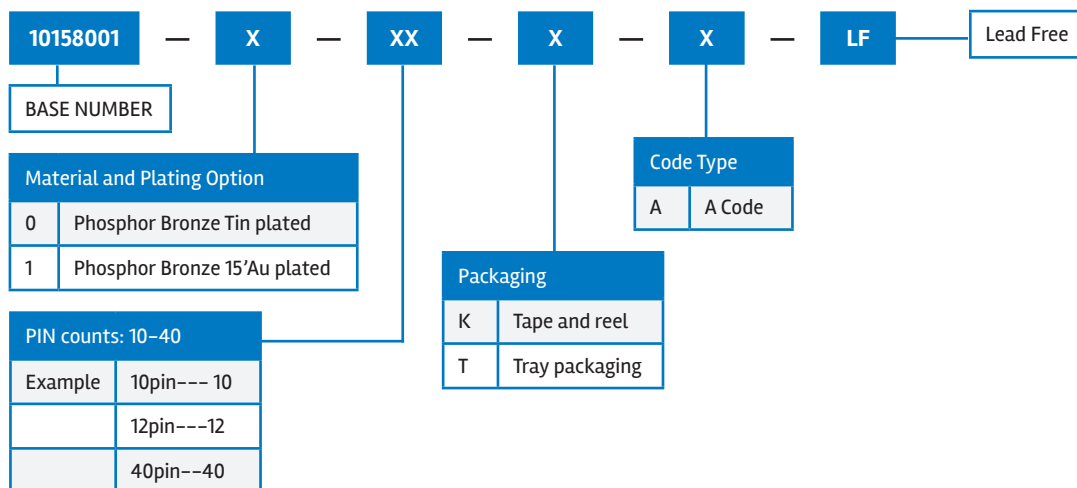
PART NUMBER SELECTOR – DOUBLE ROW R/A_SMT HEADER



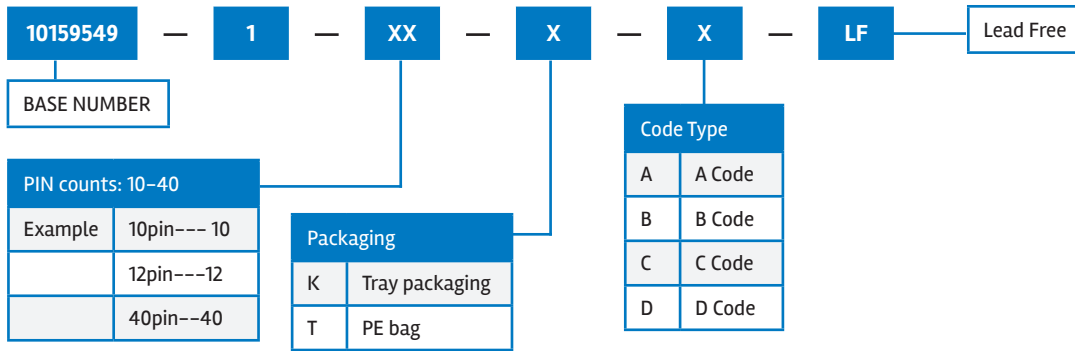
PART NUMBER SELECTOR – DOUBLE ROW VERTICAL_ TH HEADER



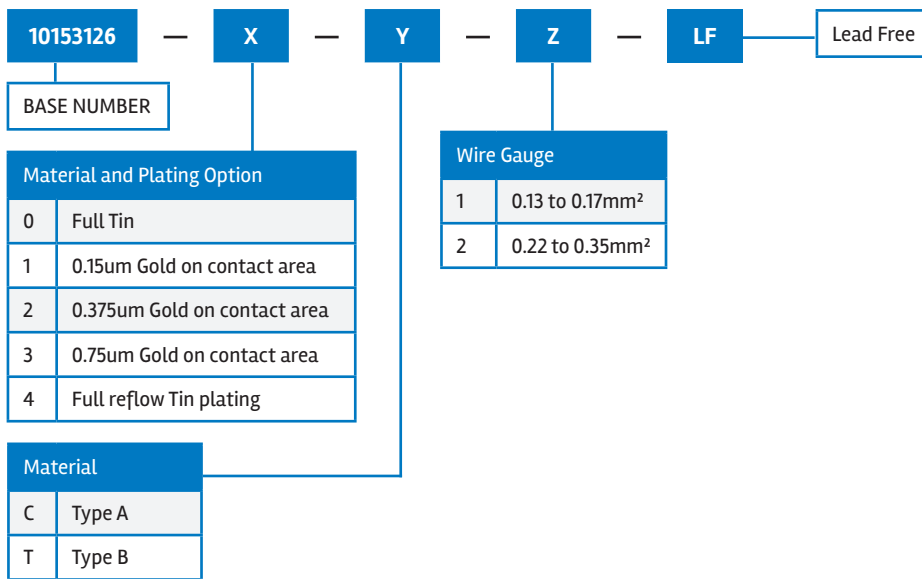
PART NUMBER SELECTOR – DOUBLE ROW VERTICAL_ SMT HEADER



PART NUMBER SELECTOR---RECEPTACLE



PART NUMBER SELECTOR---RECEPTACLE TERMINAL



HAND TOOL

Hand tool part number: 10159164-001LF
 Application Specification: GS-20-0594