molex®

# PRODUCT SPECIFICATION

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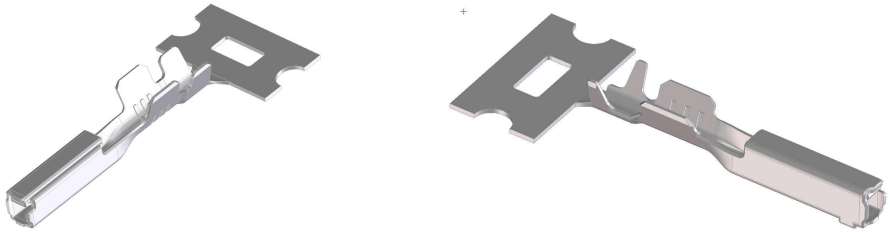
# MX64 MAT SEAL RECEPTACLE TERMINAL

## 1.0 SCOPE

This product specification covers the MX64 Mat Seal Receptacle terminal crimped to an array of wires utilizing crimp technology.

## 2.0 PRODUCT DESCRIPTION



### 2.1 PRODUCT NAME AND ATTRIBUTES

| Terminal Family | Gender | Sealing | Plating | Grip Size | Special Characteristics | Current Rating |
|---|---|---|---|---|---|---|
| MX64 | Receptacle | Mat Seal | Sn | S | ISO Grip | 9A |
| MX64 | Receptacle | Mat Seal | Au | S | ISO Grip | 9A |
| MX64 | Receptacle | Mat Seal | Ag | S | ISO Grip | 9A |
| MX64 | Receptacle | Mat Seal | Sn | L | ISO Grip | 11.3A |
| MX64 | Receptacle | Mat Seal | Au | L | ISO Grip | 11.3A |
| MX64 | Receptacle | Mat Seal | Ag | L | ISO Grip | 11.3A |
| MX64 | Receptacle | Mat Seal | Sn | S | SAE Grip | 8.6A |
| MX64 | Receptacle | Mat Seal | Au | S | SAE Grip | 8.6A |
| MX64 | Receptacle | Mat Seal | Ag | S | SAE Grip | 8.6A |
| MX64 | Receptacle | Mat Seal | Sn | L | SAE Grip | 11.3A |
| MX64 | Receptacle | Mat Seal | Au | L | SAE Grip | 11.3A |
| MX64 | Receptacle | Mat Seal | Ag | L | SAE Grip | 11.3A |

### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

All dimensions, terminal materials, plating descriptions and ID locations can be found on the applicable sales drawing.

### 2.3 FEATURES AND BENEFITS

- High performance copper alloy
- One piece terminal design
- Accepts 0.64mm square blade
- Accepts 0.64mm thick X 1.0mm wide blade
- Molex cavity compatible
- High current carrying capability
- All terminals validated to USCAR-21 crimp performance requirements across a wide array of wires
- All terminals validated to USCAR-2 terminal performance requirements

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

| Description | Document Number |
|---|---|
| Sales Drawing | SD-33468-001 (SAE grip)<br>SD-33468-002 (ISO grip) |
| Application Specification (Crimp) | AS-33468-001 (SAE grip)<br>AS-33468-002 (ISO grip) |
| Packaging Specification | PK-31300-516 |

## 4.0 SAFETY AGENCY APPROVALS

| Agency | Approval Status |
|---|---|
| CSA File Number | Not Applicable |
| TUV License number | Not Applicable |
| UL File Number | Not Applicable |
| IMDS | Available upon request |
| Environmental Compliance | Available on molex.com |

## 5.0 RATINGS / PERFORMANCE / VALIDATION

### 5.1 ELECTRICAL

#### 5.1.3 TERMINAL CURRENT DERATING CURVES

| Item | Description | Condition | Rating |
|---|---|---|---|
| 5.1.1 | Operating Voltage | Applied voltage during operation | 14 Volts DC Maximum |
| 5.1.2 | Crimp Resistance | Post environment crimp resistance | Change in crimp resistance ≤ 0.33mΩ or ≤ 0.55mΩ crimp resistance. |

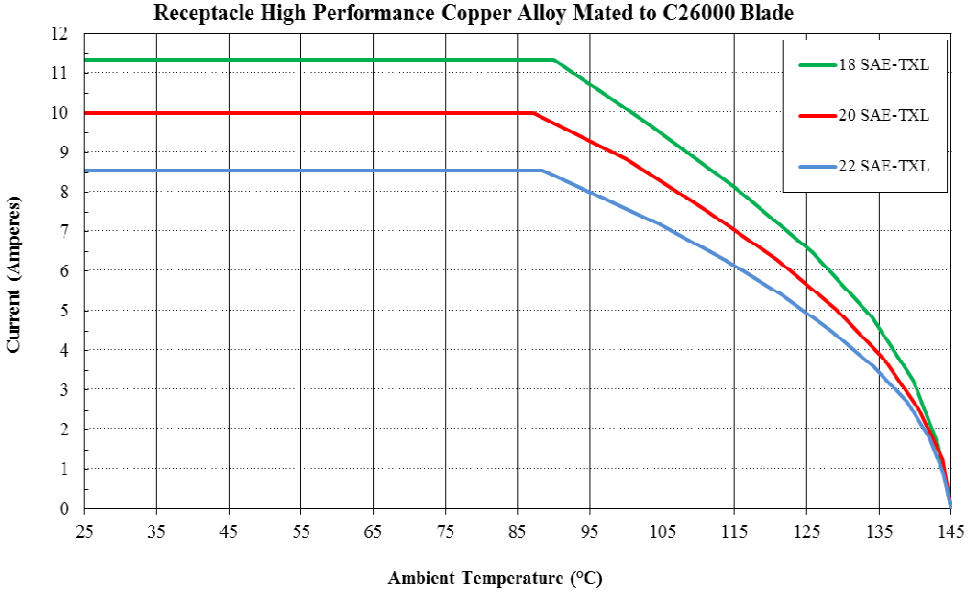
This test is used to determine the maximum test current at which a terminal system can operate in a room temperature environment before excessive thermal degradation and/or resistance begins to occur. Temperature Rise (Y axis) vs. Current (X axis) shall be plotted for each applicable conductor size.

CAUTION: These graphs are NOT to be used for actual terminal application in a vehicle. This test is conducted on terminals alone, thus eliminating the variation that may be introduced by variations in the heat dissipating characteristics of differing connector housing designs and sizes. This test cannot establish the Maximum Current Capability of a specific terminal application. For specific applications, several factors other than current load must be considered (see SAE/USCAR-2 appendix F for more information).

### 5.1.3.1 SAE (SD-33468-001) GRIP RECEPTACLE TERMINAL

USCAR DERATING CURVE

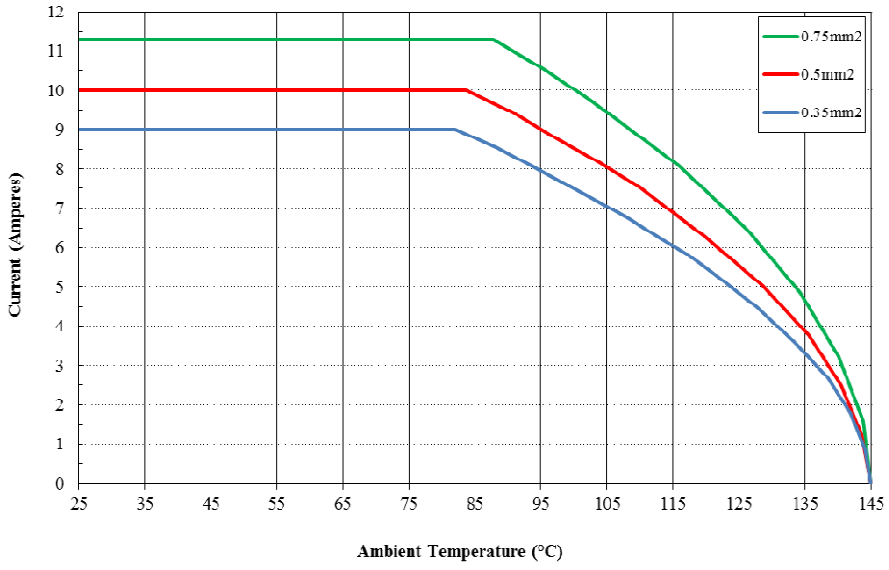
**MX64 SAE Electrodeposited Gold, Silver and Tin**
**Current Carrying Capacity Derating Curve**
**Tested per USCAR-2 Rev 4 Section 5.3.3**
**Receptacle High Performance Copper Alloy Mated to C26000 Blade**




### 5.1.3.2 ISO (SD-33468-002) GRIP RECEPTACLE TERMINAL

USCAR DERATING CURVE

**MX64 ISO with Electrodeposited Tin, Gold and Silver**
**Current Carrying Capacity Derating Curve**
**Tested per USCAR-2 Rev 5 Section 5.3.3**
**Receptacle High Performance Copper Alloy Mated to C26000 Blade**



### 5.2 TEMPERATURE

Non-operating temperature: - 40°C to +125°C
Operating temperature: - 40°C to +125°C

****For terminal validation information contact your Molex Sales Engineer**
****For connector system level performance see related product specification**

## 6.0 PACKAGING

Parts are packaged to protect against damage during handling, transit and storage. Please refer to PK-31300-516 reel wind direction. Terminals on reels should be stored in original packaging until ready for use. Storage temperature is recommended between 65 and 95°F (18 and 35°C) and storage humidity at less than 85% relative humidity. Under these conditions Molex recommended shelf life is 12 months from manufacturing date on terminal reel.

## 7.0 GAGES AND FIXTURES

Gages and Fixtures are referenced in the appropriate control plans of the receptacle terminals. For terminal electrical checking, please refer to the related connector application specification.

## 8.0 OTHER INFORMATION / MISCELLANEOUS

MOLEX REPRESENTS AND WARRANTS TO BUYER FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF DELIVERY OF THE PRODUCTSTHAT:
1) THE PRODUCTS SHALL CONFORM TO THE MOLEX SPECIFICATIONS FOR THE PRODUCTS IN FORCE AT THE DATE OF DELIVERY OF THE PRODUCTS TO BUYER, AND
2) THE PRODUCTS SHALL BE FREE FROM DEFECTS IN MATERIALS AND MANUFACTURING.

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