



Micro Commercial Components



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20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

US1A
THRU
US1M

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
Glass Passivated Chip
Ultra Fast Switching For High Efficiency
For Surface Mounted Applications
Low Forward Voltage Drop And High Current Capability
Low Reverse Leakage Current
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
Maximum Thermal Resistance; 30°C/W Junction To Lead

Table with 5 columns: MCC Catalog Number, Device Marking, Maximum Recurrent Peak Reverse Voltage, Maximum RMS Voltage, Maximum DC Blocking Voltage. Rows include US1A through US1M.

Electrical Characteristics @ 25°C Unless Otherwise Specified

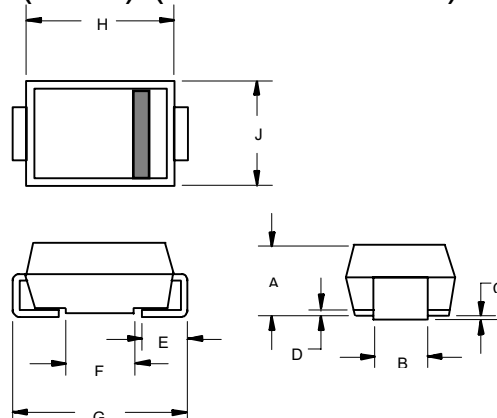
Table with 4 columns: Parameter, Symbol, Value, Conditions. Rows include Average Forward Current, Peak Forward Surge Current, Maximum Instantaneous Forward Voltage, Maximum DC Reverse Current, Maximum Reverse Recovery Time, and Typical Junction Capacitance.

\*Pulse test: Pulse width 300 sec, Duty cycle 1%

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

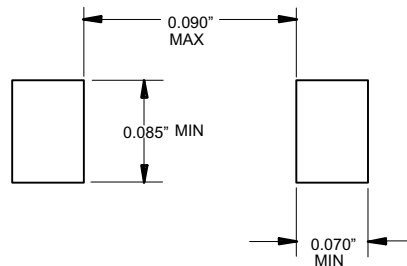
1 Amp Ultra Fast Rectifier
50 to 1000 Volts

DO-214AC
(SMA) (LEAD FRAME)



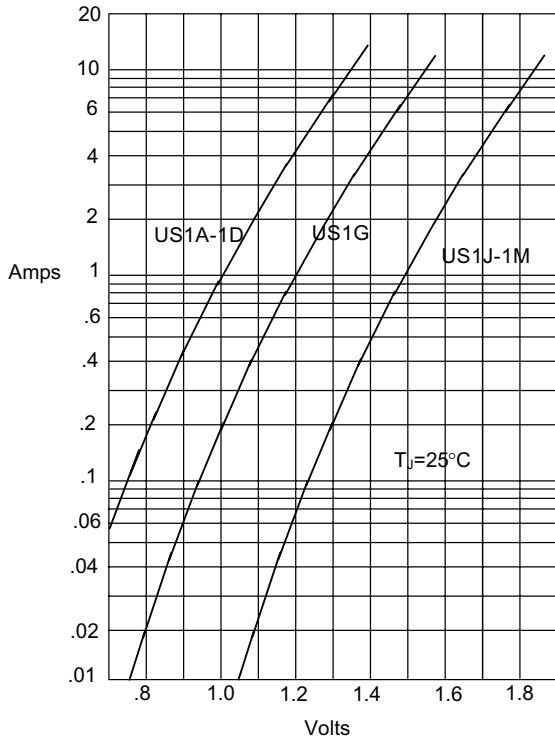
Dimensions table with columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), NOTE. Rows include dimensions A through J.

SUGGESTED SOLDER PAD LAYOUT



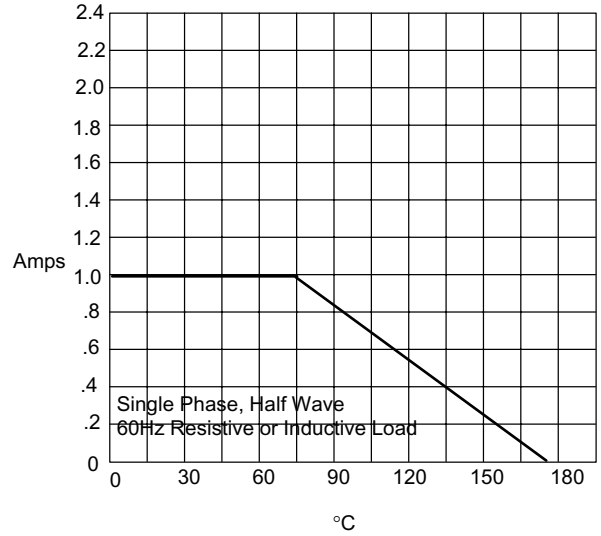
# US1A thru US1M

Figure 1  
Typical Forward Characteristics



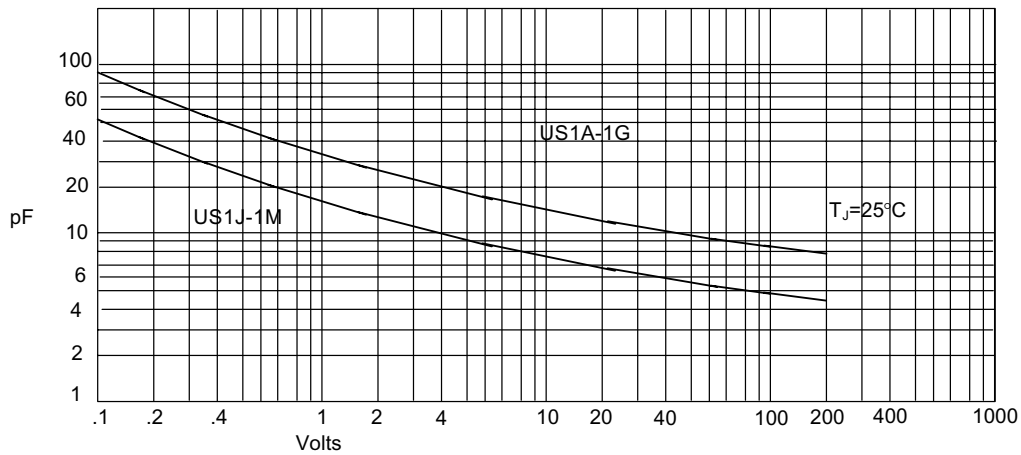
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Lead Temperature -  $^\circ\text{C}$

Figure 3  
Junction Capacitance

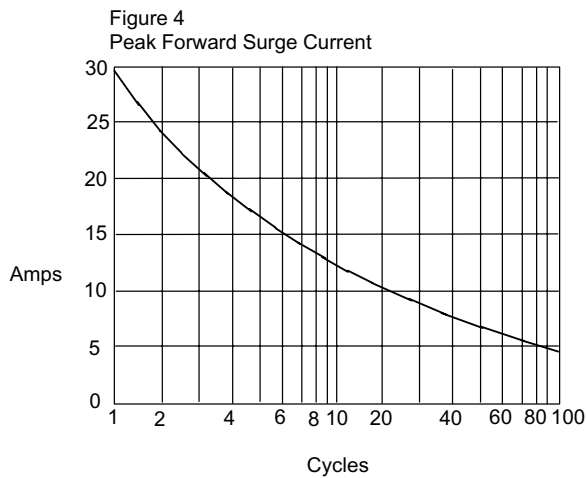


Junction Capacitance - pF versus  
Reverse Voltage - Volts

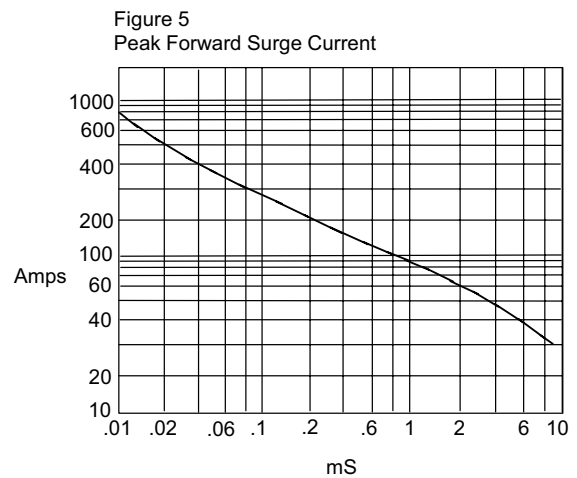
# US1A thru US1M



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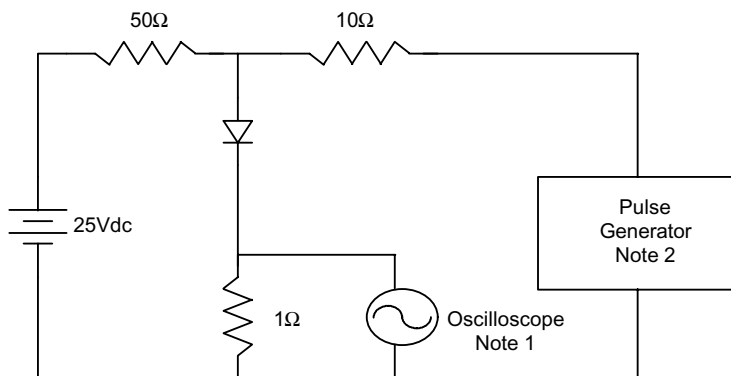


Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

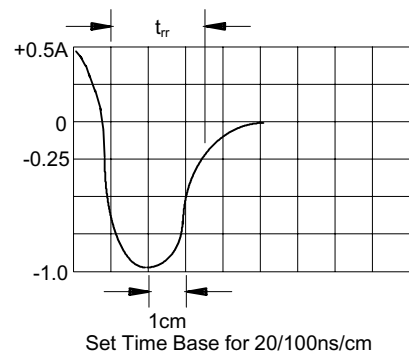


Peak Forward Surge Current - Amperes versus Pulse Duration - Milliseconds (mS)

Figure 6  
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.  
Input impedance = 1 megohm, 22pF
  2. Rise Time = 10ns max.  
Source impedance = 50 ohms
  3. Resistors are non-inductive





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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

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