



Micro Commercial Components



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US1AFL
THRU
US1MFL

Features

- Halogen free available upon request by adding suffix "-HF"
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 US1AFL, US1BFL, US1CFL, US1DFL, US1GFL, US1JFL, US1KFL, US1MFL.

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, Typical Junction Capacitance.

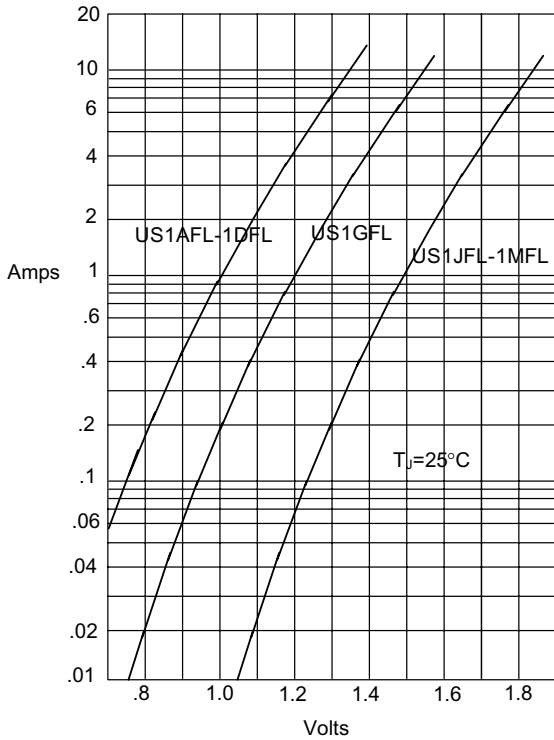
\*Pulse test: Pulse width 300 sec, Duty cycle 1%
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

1 Amp Ultra Fast Rectifier
50 to 1000 Volts

DO-221AC (SMA-FL)
DIMENSIONS
SUGGESTED SOLDER PAD LAYOUT
Includes mechanical drawings and a dimension table with columns for DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE.

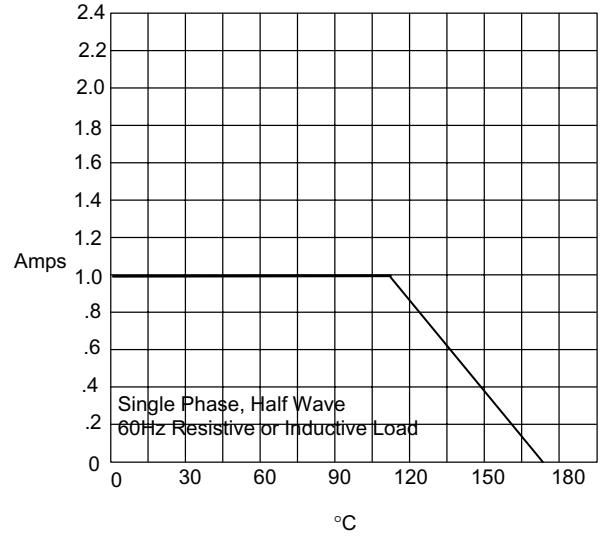
# US1AFL thru US1MFL

Figure 1  
Typical Forward Characteristics



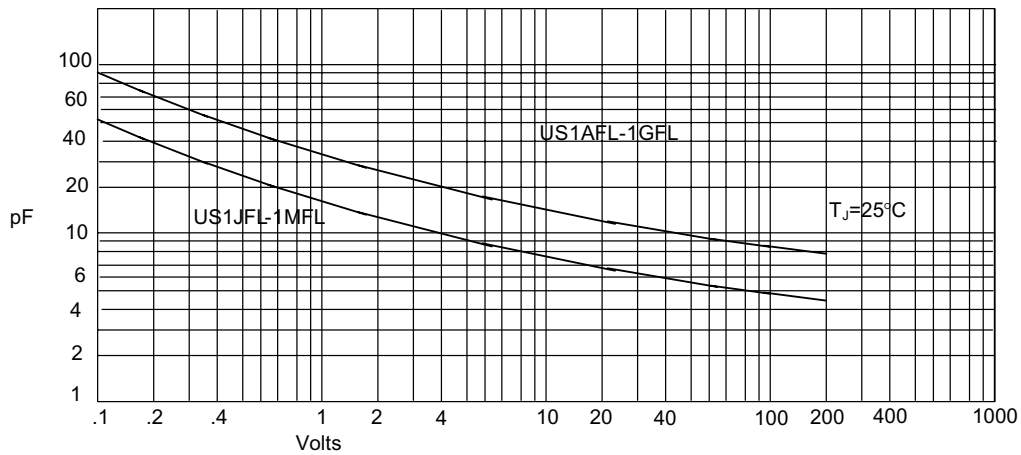
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Lead Temperature - °C

Figure 3  
Junction Capacitance

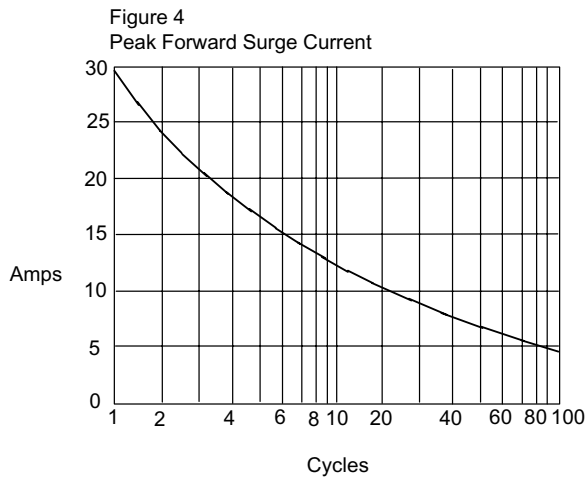


Junction Capacitance - pF versus  
Reverse Voltage - Volts

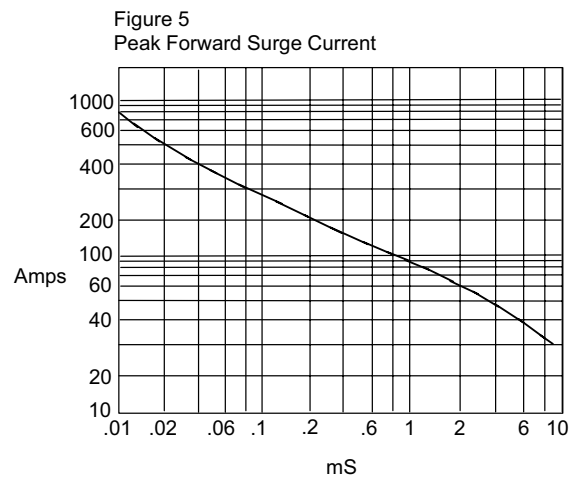
# US1AFL thru US1MFL



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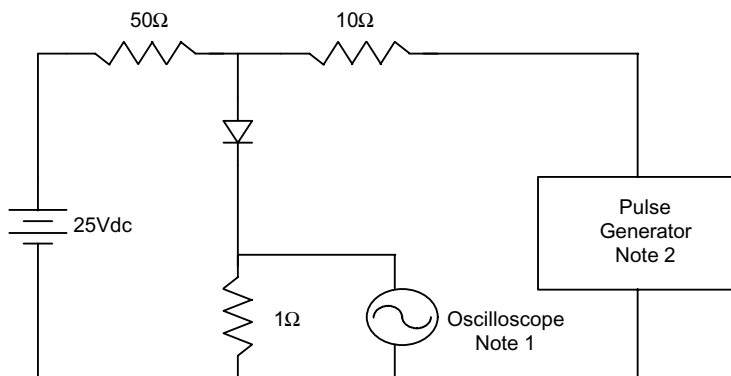


Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

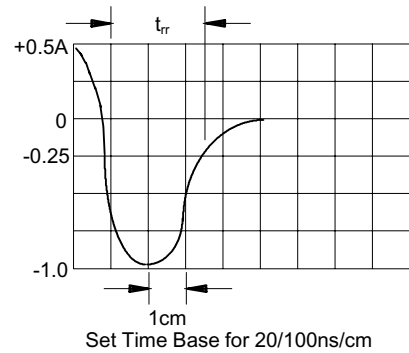


Peak Forward Surge Current - Amperes versus Pulse Duration - Milliseconds (mS)

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





TM

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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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