



Micro Commercial Components



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US1AE
THRU
US1ME

Features

- Halogen free available upon request by adding suffix "-HF"
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

- Lead Free Finish/RoHS Compliant(NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
Operating Temperature: -50°C to +150°C
Storage Temperature: -50°C to +150°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 US1AE, US1BE, US1CE, US1DE, US1GE, US1JE, US1KE, US1ME.

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.

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

1 Amp Ultra Fast Rectifier
50 to 1000 Volts

(SMAE)

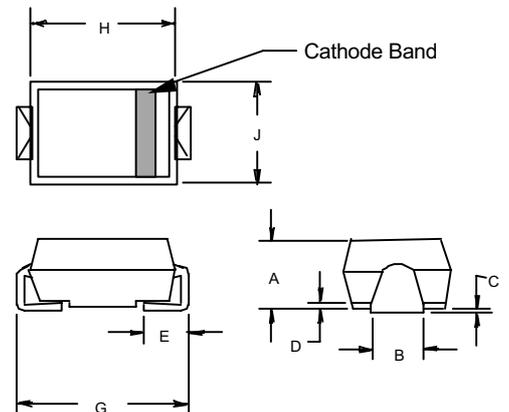
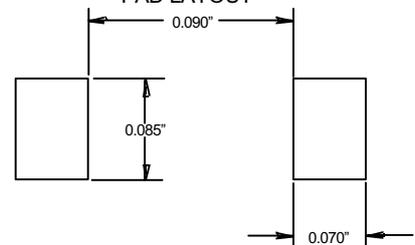


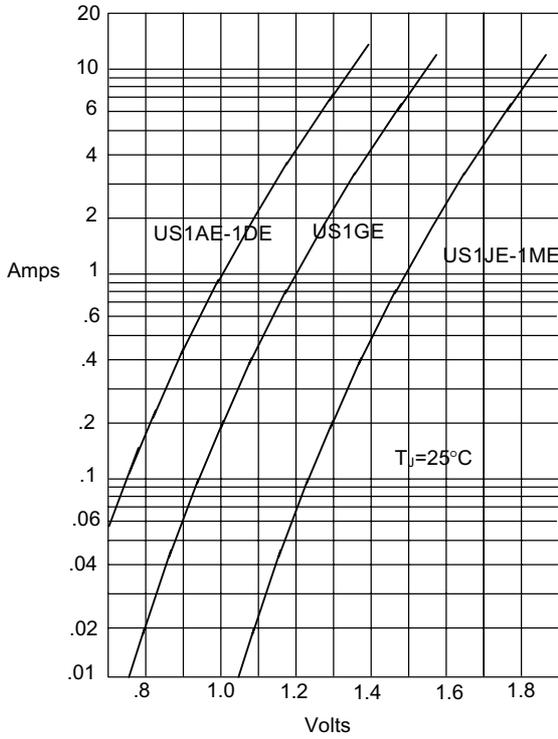
Table with 6 columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), NOTE. Rows include dimensions A through J.

SUGGESTED SOLDER PAD LAYOUT



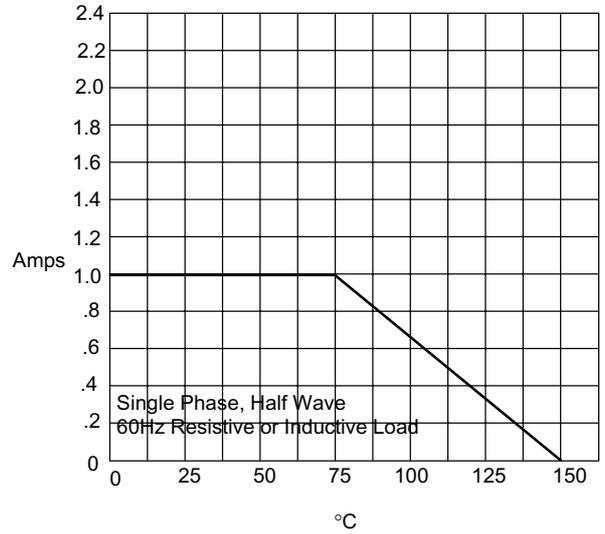
# US1AE thru US1ME

Figure 1  
Typical Forward Characteristics



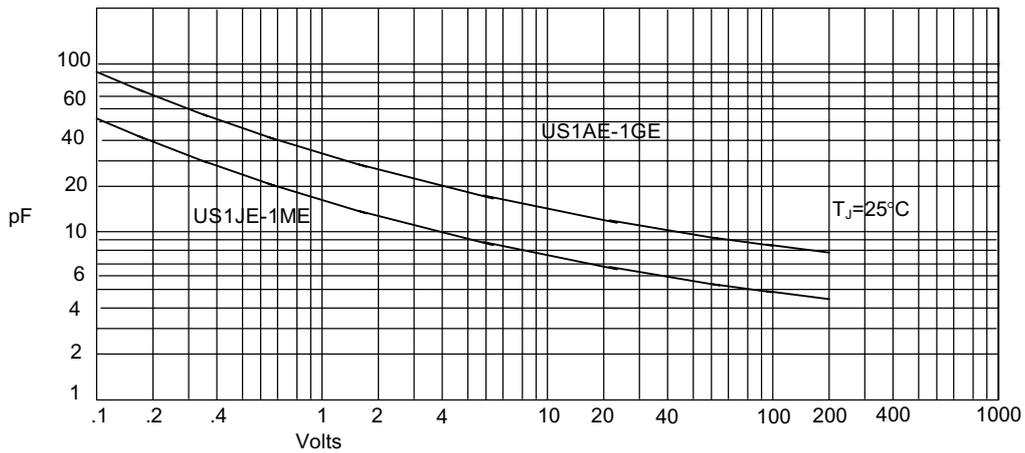
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

Figure 3  
Junction Capacitance



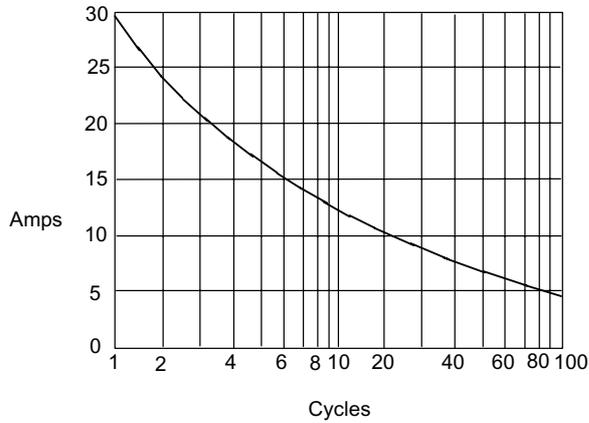
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# US1AE thru US1ME



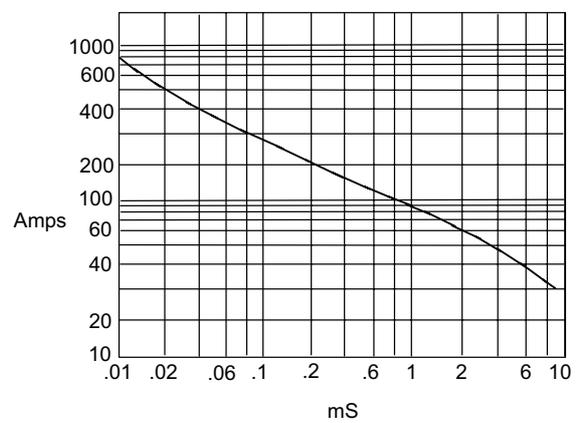
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Figure 4  
Peak Forward Surge Current



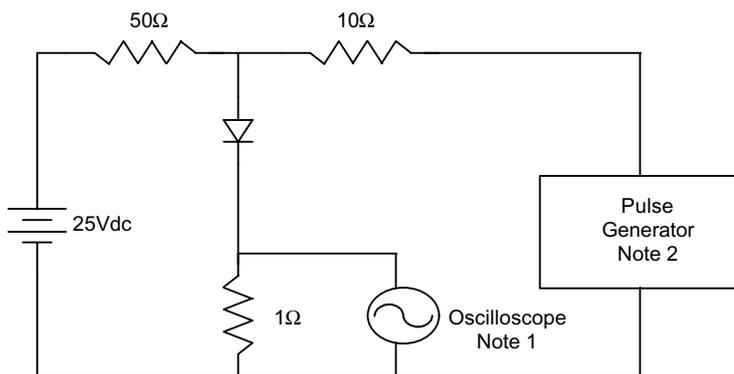
Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

Figure 5  
Peak Forward Surge Current

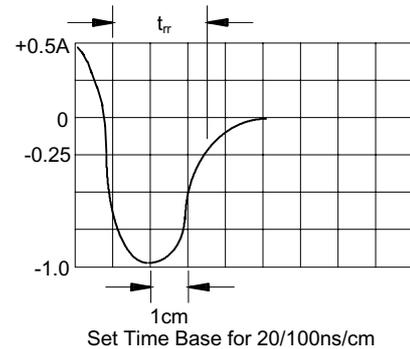


Peak Forward Surge Current - Amperes versus  
Pulse Duration - Milliseconds (mS)

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: 6Kpcs/Reel

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

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