



Micro Commercial Components  
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## Features

- High Power Surface Mount Package
- Guard Ring Protection
- Low Forward Voltage
- Integral Heat Sink/Locking Tabs
- Compatible with Automatic Insertion Equipment

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Tab
- Maximum Thermal Resistance; 10°C/W Junction To Bottom

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
UPS120E	UPS120E	20V	14V	20V
UPS130E	UPS130E	30V	21V	30V
UPS140E	UPS140E	40V	28V	40V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

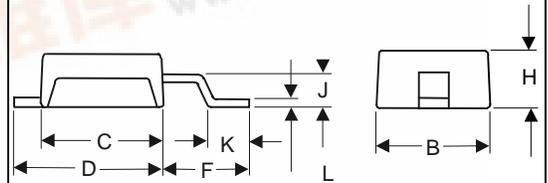
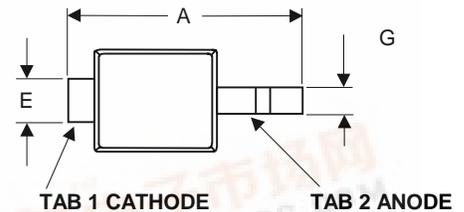
Average Forward Current	$I_{F(AV)}$	1.0A	$T_J = 130^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage UPS120E UPS130-140E	$V_F$	.45 V .55 V	$I_{FM} = 1.0\text{A};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.0uA 500uA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	150pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

\*Pulse test: Pulse width 200  $\mu\text{sec}$ , Duty cycle 2%

# UPS120E THRU UPS140E

## 1 Amp Schottky Rectifier 20 to 40 Volts

### DO-216AA (POWERMITE™)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.143	.153	3.63	3.89	
B	.070	.080	1.78	2.03	
C	.070	.080	1.78	2.03	
D	.087	.097	2.21	2.46	
E	.029	.039	0.74	0.99	
F	.051	.061	1.30	1.55	
G	-----	.026	-----	0.66	
H	.035	.045	0.89	1.14	
J	.021	.031	0.53	0.79	
K	-----	.025	-----	0.64	
L	-----	.006	-----	0.15	



NOTE: POWERMITE™ package is patent by microsemi corp.

# UPS120E thru UPS140E

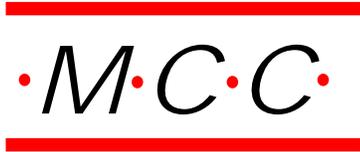
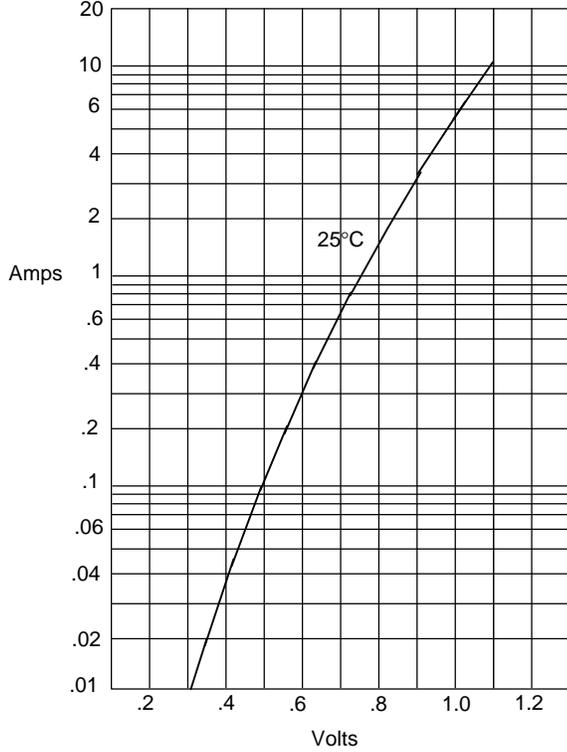
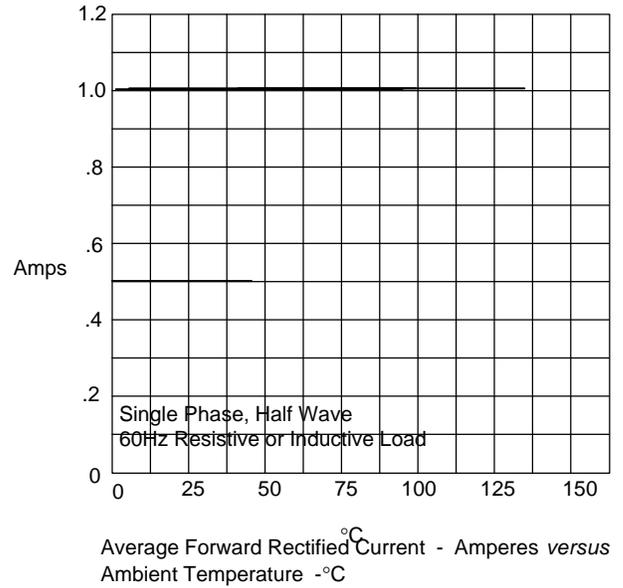


Figure 1  
Typical Forward Characteristics



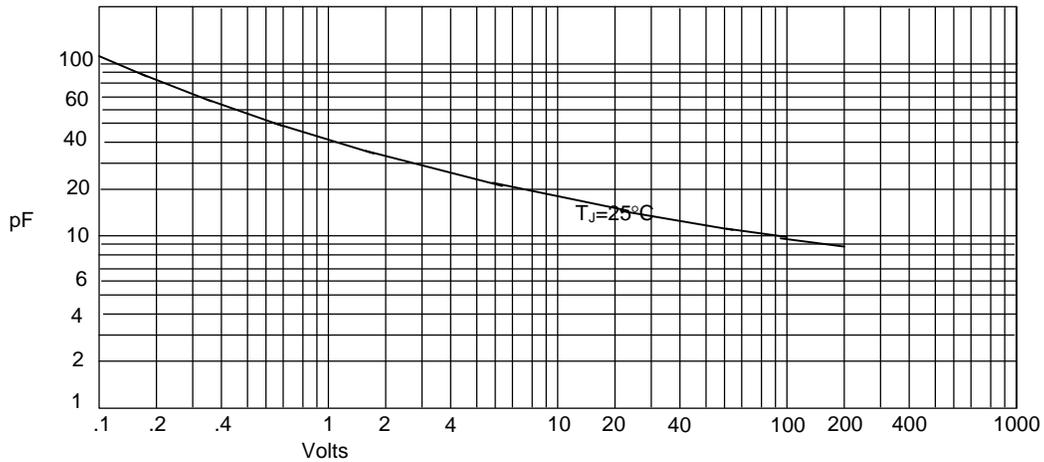
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



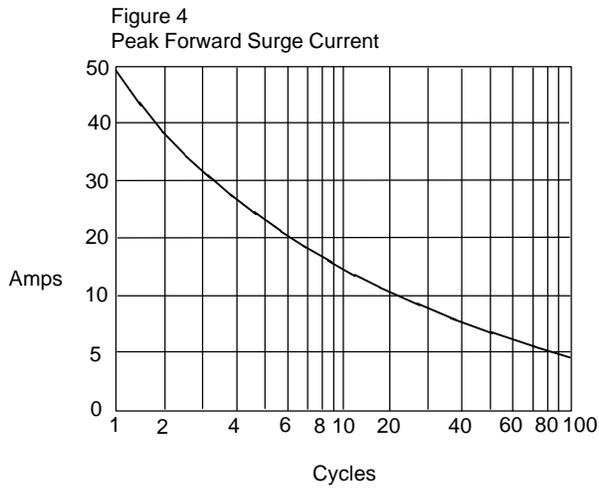
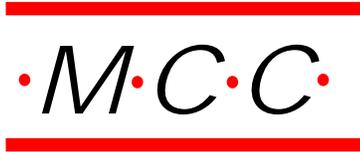
Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



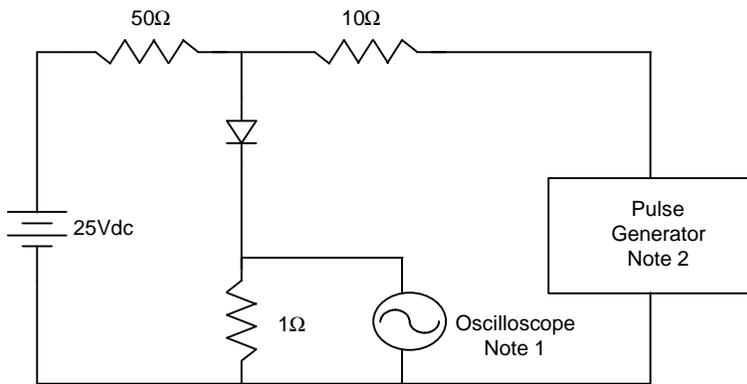
Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

UPS120E thru UPS140E



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

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

