Micro Commercial Components
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UPS120E THRU UPS140E

1 Amp Schottky Rectifier 20 to 40 Volts

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

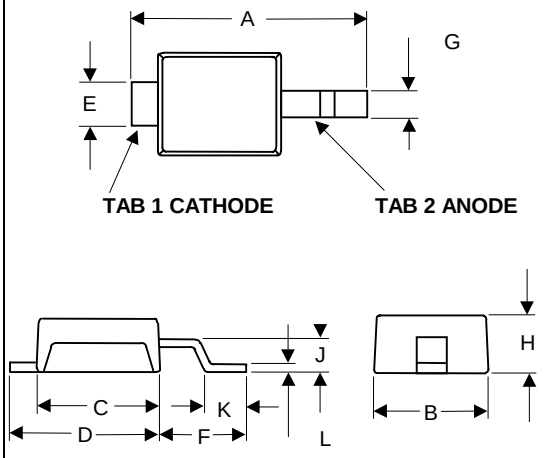
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
UPS120E	UPS120E	20V	14V	20V
UPS130E	UPS130E	30V	21V	30V
UPS140E	UPS140E	40V	28V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_J = 130°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} = 1.0A; T_J = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1.0uA 500uA	T_J = 25°C T_J = 125°C
Typical Junction Capacitance	C_J	150pF	Measured at 1.0MHz, V_R=4.0V

*Pulse test: Pulse width 200 µsec, Duty cycle 2%

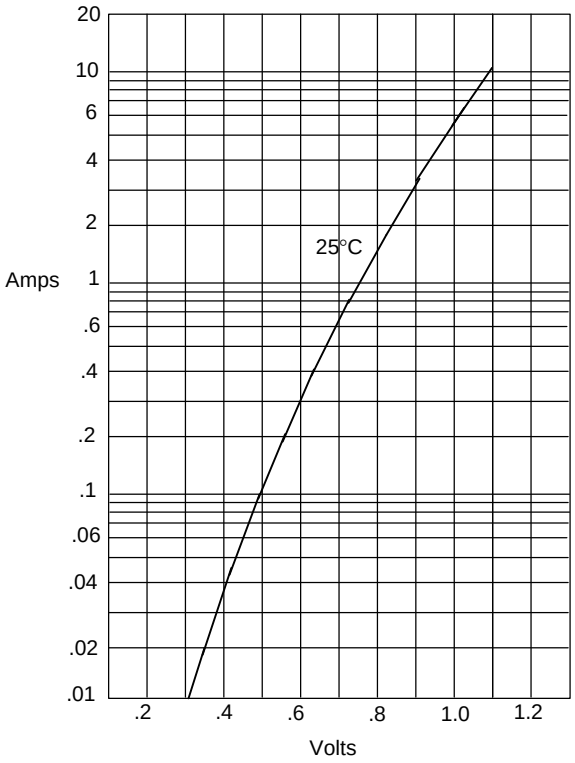
DO-216AA
(POWERMITE™)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	

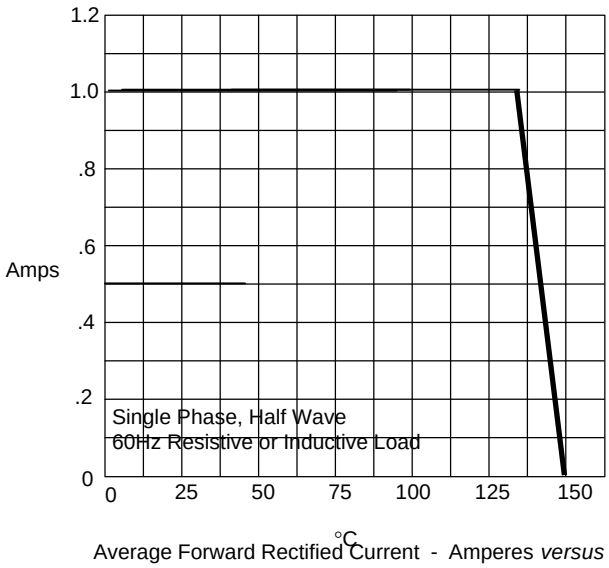
NOTE: POWERMITE™ package is patental by microsemi corp.

Figure 1
Typical Forward Characteristics



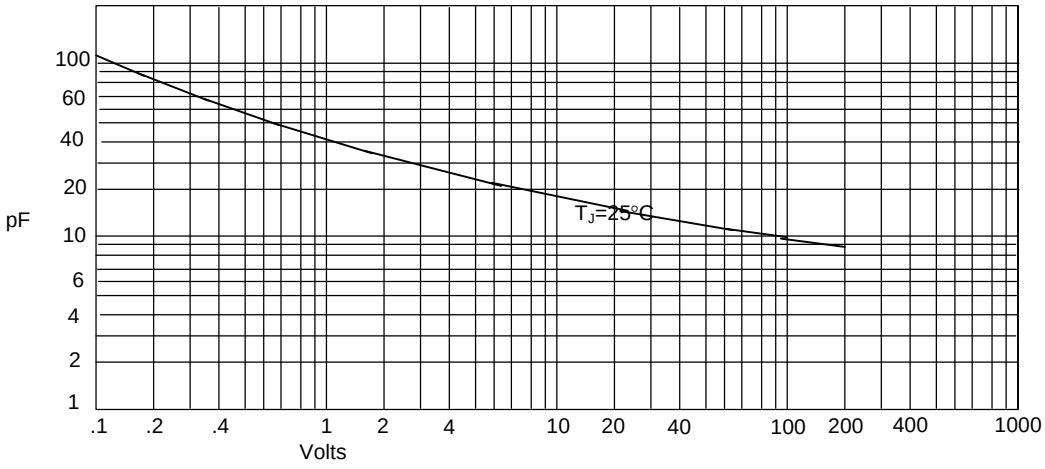
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



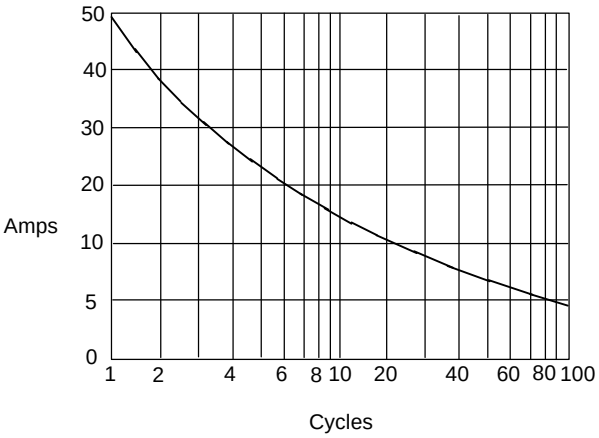
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature -°C

Figure 3
Junction Capacitance



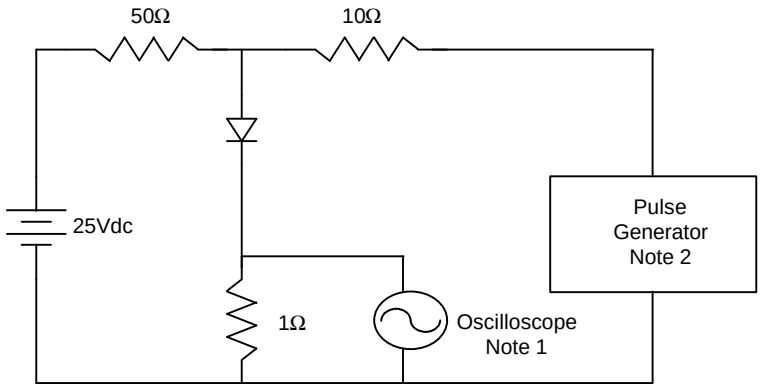
Junction Capacitance - pF*versus*
Reverse Voltage - Volts

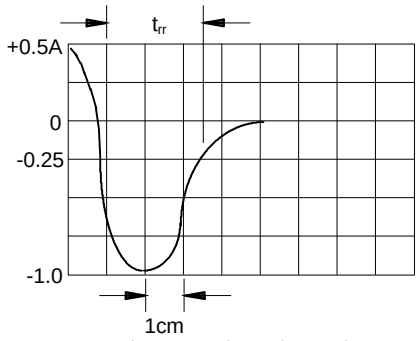
Figure 4
Peak Forward Surge Current



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

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram





Set Time Base for 20/100ns/cm

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