



Micro Commercial Components  
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# UPR05 THRU UPR20

## Features

- High Power Surface Mount Package
- Super-Fast Recovery Time
- Low Forward Voltage Drop
- 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
UPR05	M/2UA	50 V	35V	50V
UPR10	M/2UB	100V	70V	100V
UPR15	M/2UC	150V	105V	150V
UPR20	M/2UD	200V	140V	200V

Remark: M= Date Code

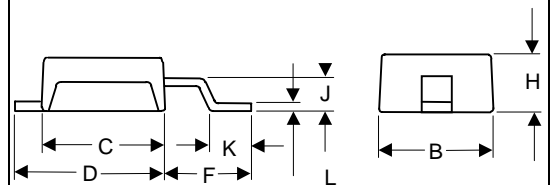
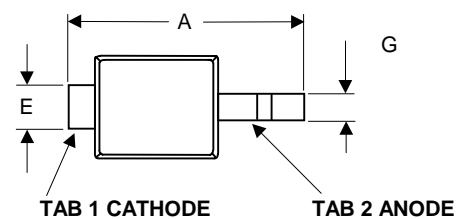
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	2.5A	$T_J = 75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	25A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	.975V	$I_{FM} = 2.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	2.0 $\mu$ A 50 $\mu$ A	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	25 ns	$I_F=0.5A, I_R=6.0A,$ $I_{rr}=0.25A$

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

## 2.5 Amp Super Fast Recovery Silicon Rectifier 50 to 200 Volts

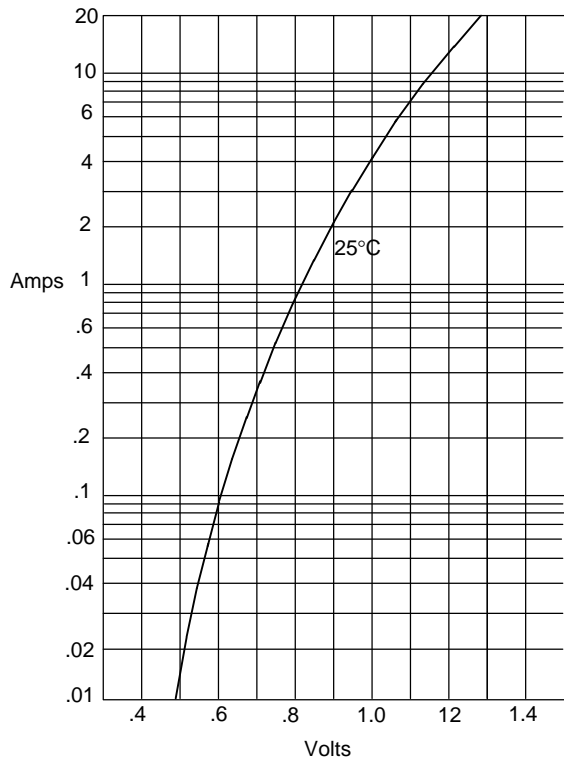
### DO-216AA ( POWERMITE™ )



DIM	DIMENSIONS				NOTE
	INCHES		MM		
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	

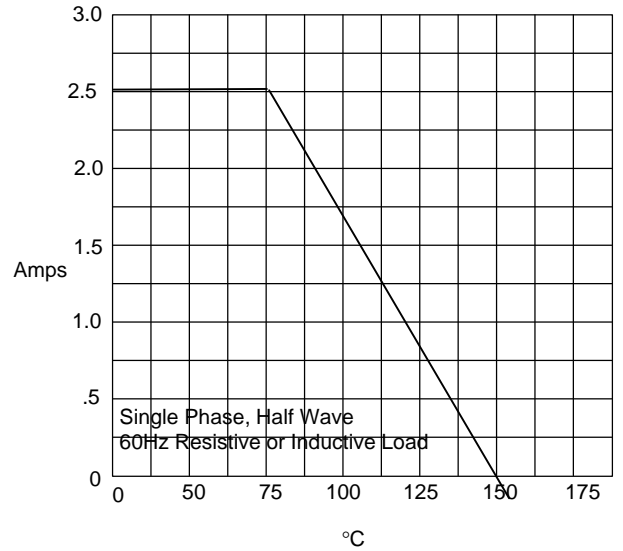
NOTE: POWERMITE™ package is patent by microsemi corp.

Figure 1  
Typical Forward Characteristics



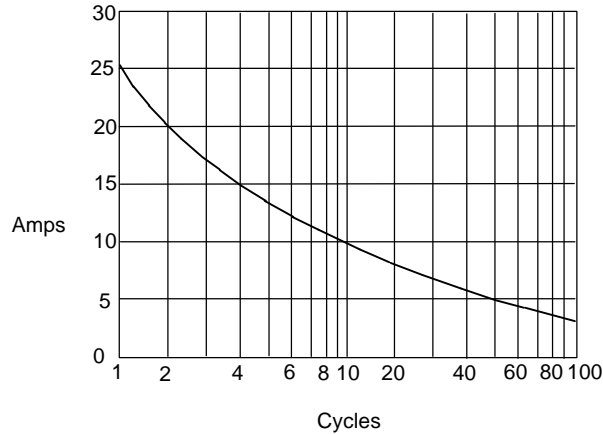
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

Figure 3  
Maximum Non-Repetitive Forward Surge Current



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