

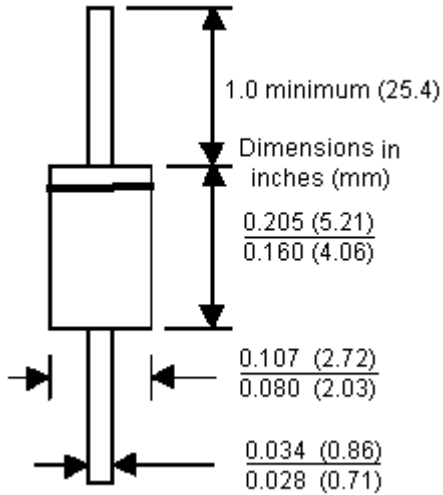
# General Purpose Rectifiers



## Features:

- Low forward voltage drop.
- High current capability.

DO-41



Colour Band Denotes Cathode

Dimensions : Millimetres (Inches)

## Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Units
Average Rectified Current 0.375 Inches Lead Length at $T_A = 75^\circ\text{C}$	$I_O$	1.0	A
Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC Method)	$i_f$ (surge)	30	
Total Device Dissipation Derate above $25^\circ\text{C}$	$P_D$	2.5 20	W mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	50	$^\circ\text{C}/\text{W}$
Storage Temperature Range	$T_{stg}$	-55 to +175	$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150	

\*These Ratings are Limiting Values above Which the Serviceability of Any Semiconductor Device may be Impaired.

# General Purpose Rectifiers

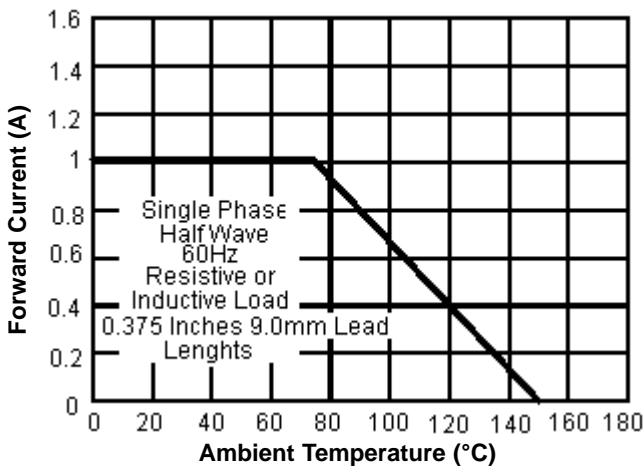


## Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

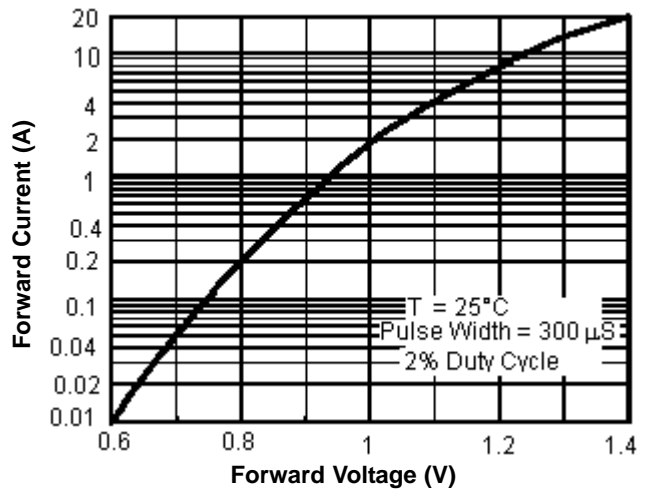
Parameter	Device					Unit
	4001	4002	4003	4005	4006	
Peak Repetitive Reverse Voltage	50	100	200	600	1000	V
Maximum RMS Voltage	35	70	140	420	700	
DC Reverse Voltage (Rated $V_R$ )	50	100	200	600	1000	
Maximum Reverse Current at Rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0 500					$\mu\text{A}$
Maximum Forward Voltage at 1.0A	1.1					V
Maximum Full Load Reverse Current, Full Cycle $T_A = 75^\circ\text{C}$	30					$\mu\text{A}$
Typical Junction Capacitance $V_R = 4.0\text{V}$ , $f = 1.0\text{MHz}$	15					pF

## Typical Characteristics

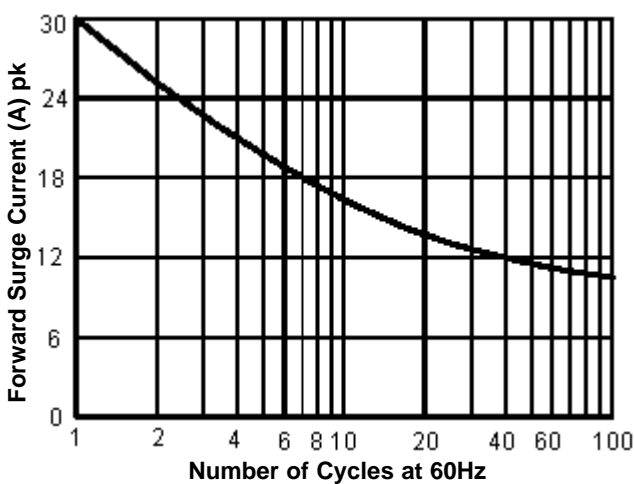
Forward Current Derating Curve



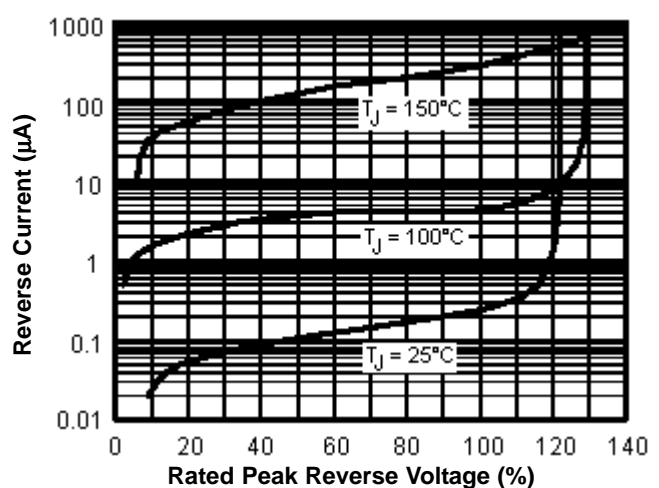
Forward Characteristics



Non-Repetitive Surge Current



Reverse Characteristics



# General Purpose Rectifiers



## Part Number Table

Description	Part Number
Diode, 1A, 50V Reel 5K	1N4001 R0
Diode, 1A, 100V Reel 5K	1N4002 R0
Diode, 1A, 200V Reel 5K	1N4003 R0
Diode, 1A, 800V Reel 5K	1N4006 R0
Diode, Standard, 1A, 50V	1N4001
Diode, Standard, 1A, 100V	1N5402
Diode, Standard, 1A, 200V	1N4003
Diode, Standard, 1A, 600V	1N4005
Diode, Standard, 1A, 800V	1N4006

**Disclaimer** This data sheet and its contents (the "Information") belong to the Premier Farnell Group (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. SPC Multicomp is the registered trademark of the Group. © Premier Farnell plc 2009.

<http://www.farnell.com>  
<http://www.newark.com>  
<http://www.cpc.co.uk>

