

Plastic Silicon Rectifiers **multicomp**PRO

**RoHS
Compliant**



Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

Mechanical Data

Case	: JEDEC DO-41
Case Material	: Molded Plastic
Terminals	: Axial lead, solderable per MIL- STD-202, Method 208
Polarity	: Colour band denotes cathode
Weight	: 0.012 ounces, 0.34 grams
Mounting position	: Any

Max. Ratings and Electrical Characteristics @T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
Max. Recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1,000	V
Max. RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Max. DC blocking voltage	V _{DC}	50	100	200	400	600	800	1,000	V
Max. average forward rectified current 9.5mm lead lengths, @ T _A = 75°C	I _{F(AV)}	1							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ T _J = 125°C	I _{FSM}	40							A
Max. instantaneous forward voltage @ 1.0 A	V _F	1							V
Max. reverse current @ T _A = 25°C at rated DC blocking voltage @ T _A = 100°C	I _R	5 50							µA
Typical junction capacitance (Note1)	C _J	15							pF
Typical junction capacitance (Note2)	R _{θJA}	50							°C/W
Operating junction temperature range	T _J	-55 to +150							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Note:

1. Measured at 1MHz and applied reverse voltage of 4V DC.
2. Thermal resistance from junction to ambient.

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
Element14.com/multicomp-pro

multicompPRO

Plastic Silicon Rectifiers **multicomp**PRO

Ratings And Characteristic Curves

Fig.1 -- Typical Forward Characteristic

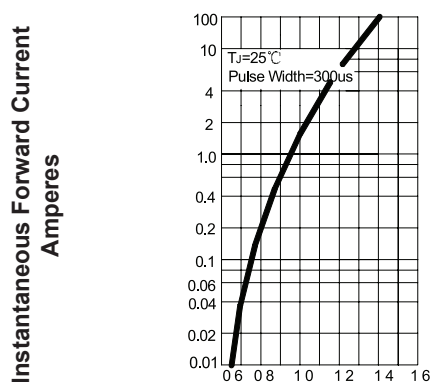


Fig.2 -- Typical Junction Capacitance

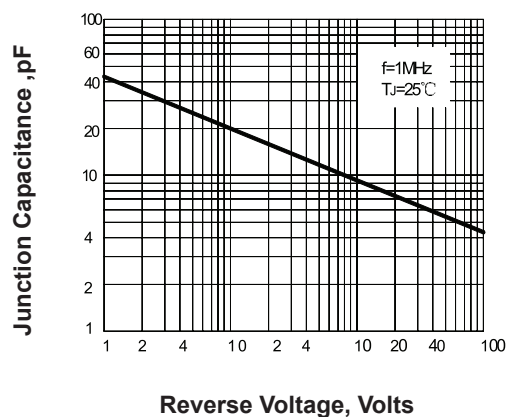


Fig.3 -- Peak Forward Surge Current

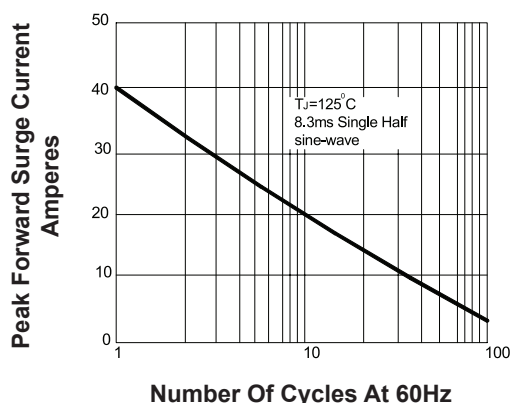
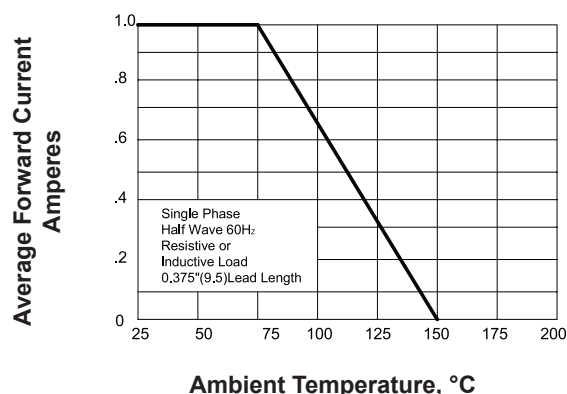
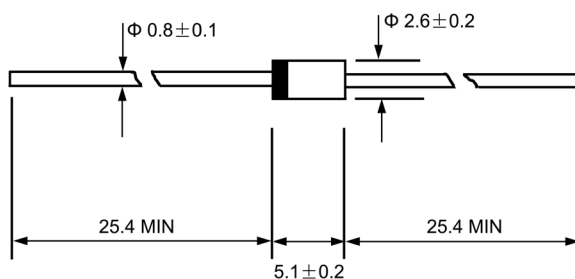


Fig.4 -- Forward Derating Curve



DO - 41



Dimensions : Millimetres

Part Number Table

Description	Part Number
Plastic Silicon Rectifiers, 50V	1N4001
Plastic Silicon Rectifiers, 100V	1N4002
Plastic Silicon Rectifiers, 200V	1N4003
Plastic Silicon Rectifiers, 400V	1N4004
Plastic Silicon Rectifiers, 600V	1N4005
Plastic Silicon Rectifiers, 800V	1N4006
Plastic Silicon Rectifiers, 1000V	1N4007

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (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. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.