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

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)	$R_{\theta JA}$	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.

Ratings And Characteristic Curves

Fig.1 -- Typical Forward Characteristic

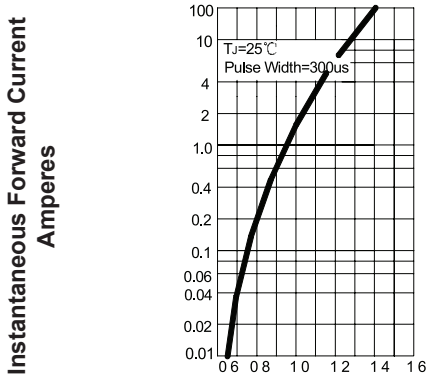


Fig.2 -- Typical Junction Capacitance

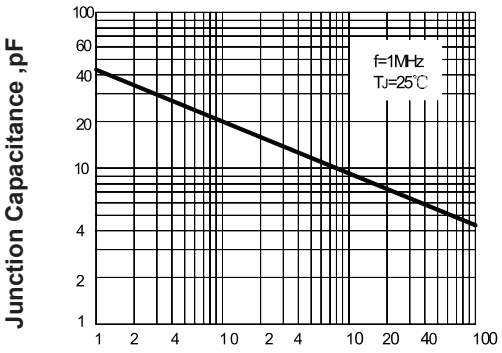


Fig.3 -- Peak Forward Surge Current

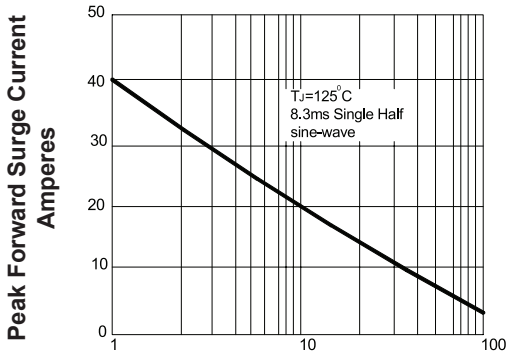
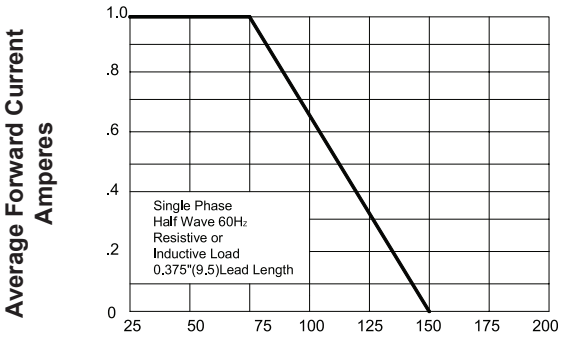


Fig.4 -- Forward Derating Curve



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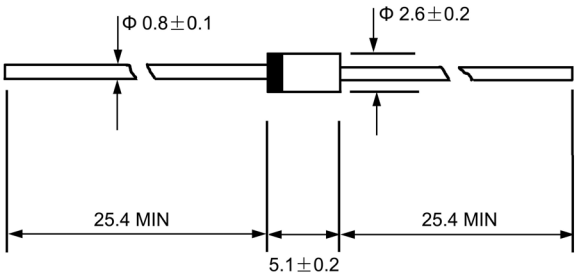

Dimensions : Millimetres

Part Number Table

Description	Part Number
Plastic Silicon Rectifiers	1N4001-1N4007

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