Plastic Silicon Rectifiers

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, molded plastic
Terminals	: Axial lead, solderable per MIL- STD-202, Method 208
Polarity	: Colour band denotes cathode
Weight	: 0.012oz, 0.34g
Mounting position	: Any
Voltage Range	: 50V to 1,000V
Current	: 1A

Maximum Ratings And Electrical Characteristics:

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate by 20%.

Characteristics	Symbol	Value	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	V
Maximum RMS voltage	V_{RMS}	35	
Maximum DC blocking voltage	V_{DC}	50	
Maximum average forward rectified current 9.5mm lead lengths, @T_A = 75°C	$I_{F(AV)}$	1	A
Peak forw ard surge current 8.3ms single half-sine-wave superimposed on rated load @T_J = 125°C	I_{FSM}	40	
Maximum instantaneous forward voltage @1A	V_F	1	
Maximum 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 thermal resistance (Note2)	$R_{\theta JA}$	50	°C / W
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}		

Note: 1. Measured at 1MHz and Applied Reverse Voltage of 4V DC.
2. Thermal resistance from junction to ambient.

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

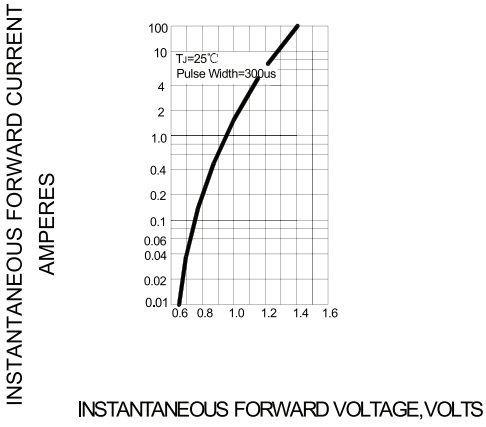


FIG.2 – TYPICAL JUNCTION CAPACITANCE

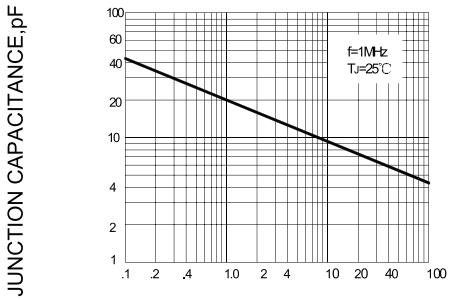


FIG.3 – PEAK FORWARD SURGE CURRENT

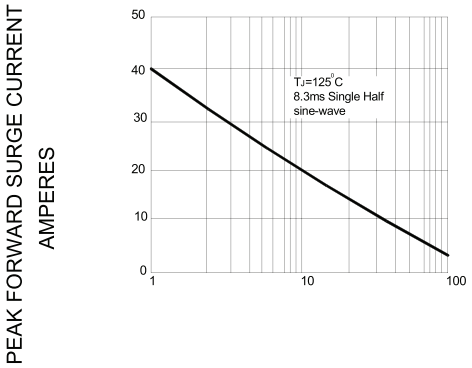
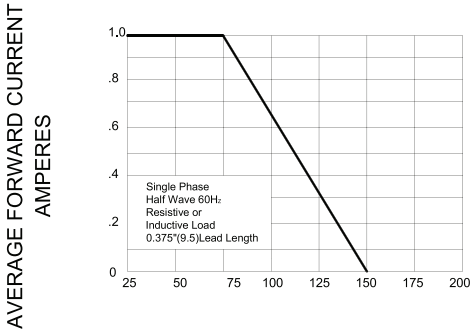


FIG.4 – FORWARD DERATING CURVE



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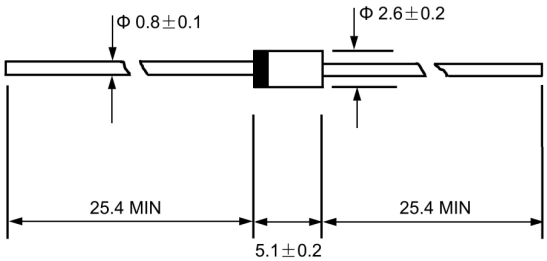

Dimensions : Millimetres

Part Number Table

Description	Part Number
Plastic Silicon Rectifier	1N4001-T