

Plastic Silicon Rectifiers **multicomp**PRO



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, @ $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ\text{C}$	I_{FSM}	40	
Maximum instantaneous forward voltage @1A	V_F	1	
Maximum reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	5 50	μA
Typical Junction Capacitance (Note1)	C_J	15	pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50	$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
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

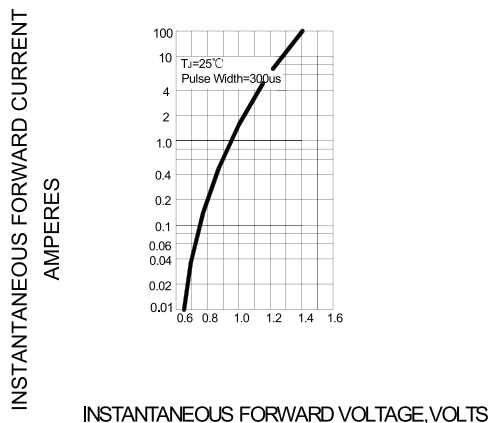


FIG.2 – TYPICAL JUNCTION CAPACITANCE

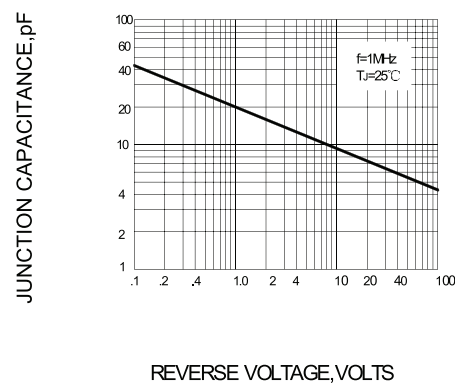


FIG.3 – PEAK FORWARD SURGE CURRENT

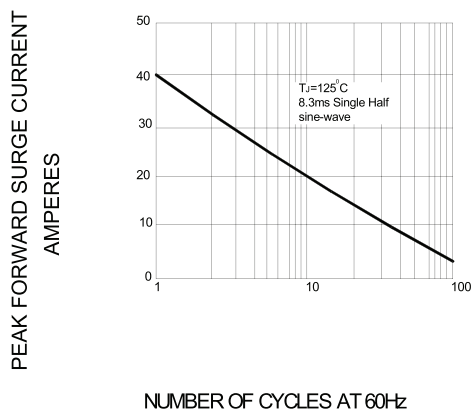
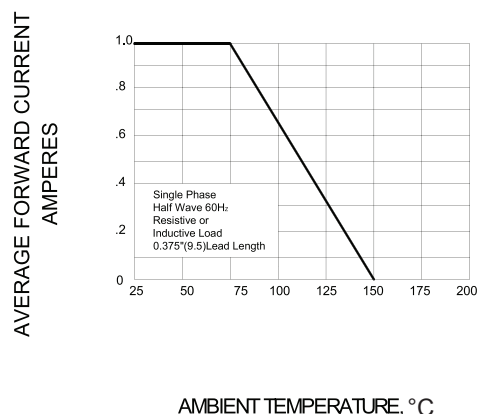
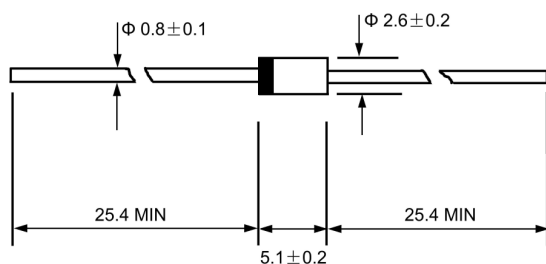


FIG.4 – FORWARD DERATING CURVE



DO - 41



Part Number Table

Description	Part Number
Plastic Silicon Rectifier	1N4001-T

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