

Standard Silicon Rectifiers

Reverse Voltage - 100 to 1000 V

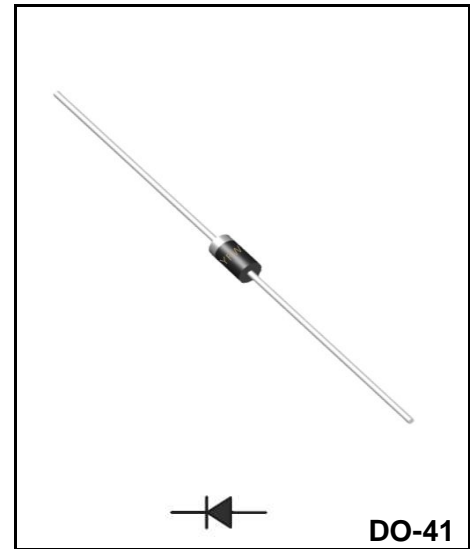
Forward Current - 1 A

FEATURES

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Open Junction chip
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: DO-41
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.25g / 0.0088oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ °C}$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30.0						A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.0						V
Maximum DC Reverse Current $T_a = 25\text{ °C}$ at Rated DC Blocking Voltage $T_a = 125\text{ °C}$	I_R	5.0 50						μA
Typical Junction Capacitance ⁽¹⁾	C_j	15						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	50						$^{\circ}C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-65 ~ +150						$^{\circ}C$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

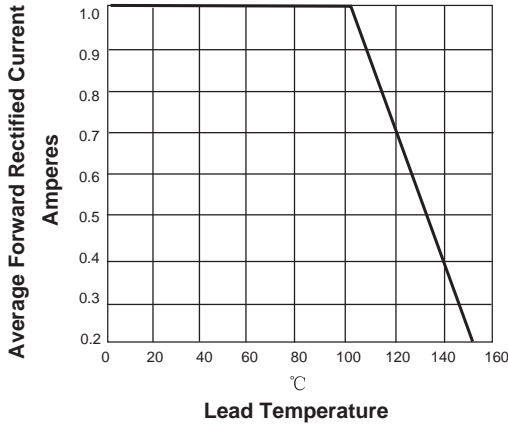


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

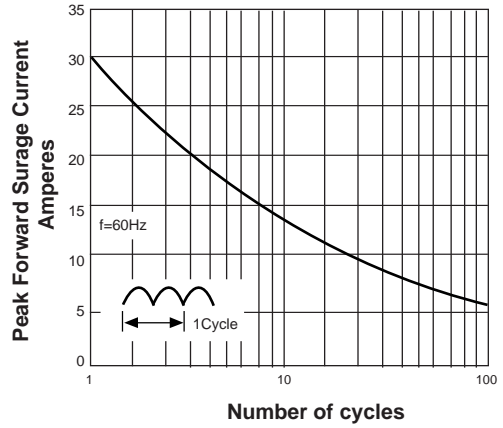


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

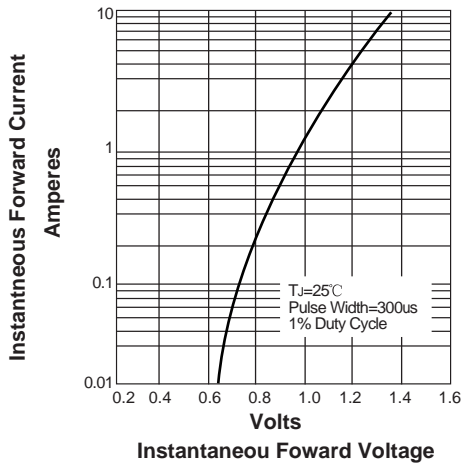
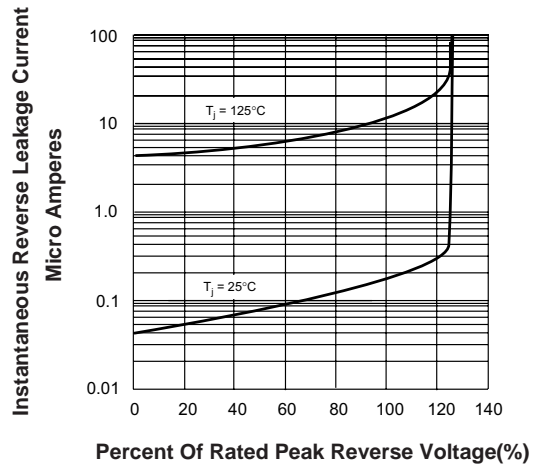


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Ordering information

Package	Packing Description	Packing Quantity
DO-41	bulk	1000PCS/Inner Box 25000PCS/Carton
	ammo pack	5000PCS/Inner Box 50000PCS/Carton

Package Dimensions

DO-41

Dim.	Millimeter(mm)		INCHES	
	Min.	Max.	Min.	Max.
A	4.10	5.20	0.166	0.205
B	2.00	2.70	0.080	0.107
C	0.60	0.70	0.024	0.028
D	25.4	-	1.00	-

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