





ate Number: Q10561 Certificate Number: E17276

# 1N4001 - 1N4007 BY133

PRV: 50 - 1300 Volts

lo: 1.0 Ampere

### **FEATURES:**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Pb / RoHS Free

#### **MECHANICAL DATA:**

\* Case: DO-41 Molded plastic

\* Epoxy: UL94V-O rate flame retardant

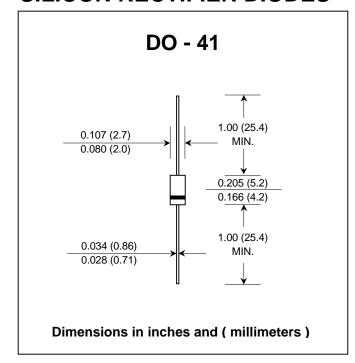
\* Lead: Axial lead solderable per MIL-STD-202,

Method 208 guaranteed

\* Polarity: Color band denotes cathode end

\* Mounting position : Any\* Weight : 0.34 gram

## **SILICON RECTIFIER DIODES**



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at  $25\,^{\circ}$ C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

RATING	SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	BY133	UNIT
Maximum Repetitive Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	1300	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	1000	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	1300	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 75 °C	<b>I</b> F(AV)	1.0								Α
Maximum Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	IFSM	30								Α
Maximum Forward Voltage at I <sub>F</sub> = 1.0 Amp.	VF	1.1								V
Maximum DC Reverse Current Ta = 25 °C	lR	5.0								μΑ
at rated DC Blocking Voltage Ta = 100 °C	I <sub>R(H)</sub>	50								μΑ
Typical Reverse Revcovery Time (IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.)	Trr	2.0								μs
Typical Junction Capacitance (Note1)	Сл	15								pF
Typical Thermal Resistance (Note2)	RθJA	26								°C/W
Junction Temperature Range	TJ	- 65 to + 175								°C
Storage Temperature Range	Тѕтс	- 65 to + 175								°C

Notes: (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

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### RATING AND CHARACTERISTIC CURVES (1N4001 - BY133)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

1.0

SHOW A SHOW A

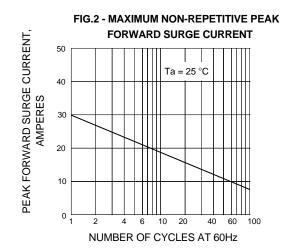


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

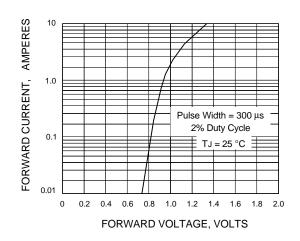
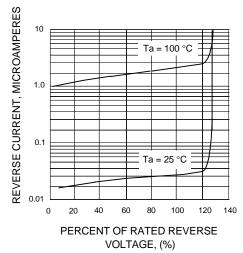


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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