



**DO-41**

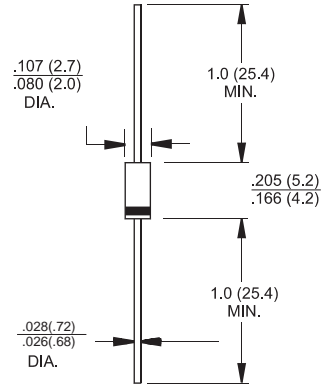


### Features

- ✦ High efficiency, Low VF
- ✦ High current capability
- ✦ High reliability
- ✦ High surge current capability
- ✦ Low power loss
- ✦ Easily cleaned with Freon, Alcohol, Isopropal nop and similar solvents

### Mechanical Data

- ✦ Cases: Molded plastic
- ✦ Epoxy: UL 94V-0 rate flame retardant
- ✦ Polarity: Color band denotes cathode end
- ✦ High temperature soldering guaranteed:  
260 °C /10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✦ Weight: 0.35 gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

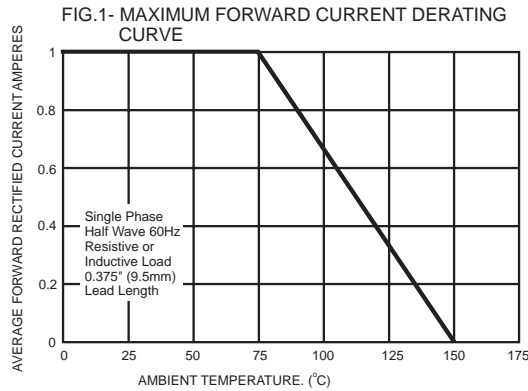
For capacitive load, derate current by 20%

Type Number	Symbol	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	BY 133	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	1300	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	910	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	1300	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ $T_A = 75^\circ C$	$I_{(AV)}$	1.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	30								A
Maximum Instantaneous Forward Voltage @1.0A	$V_F$	1.0								V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	$I_R$	5.0 50								uA uA
Maximum Full Load Reverse Current ,Full Cycle Average .375" (9.5mm) Lead Length @ $T_A=75^\circ C$	$HT_{IR}$	30								uA
Typical Junction Capacitance ( Note 1 )	$C_j$	10								pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JA}$	65								°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +150								°C

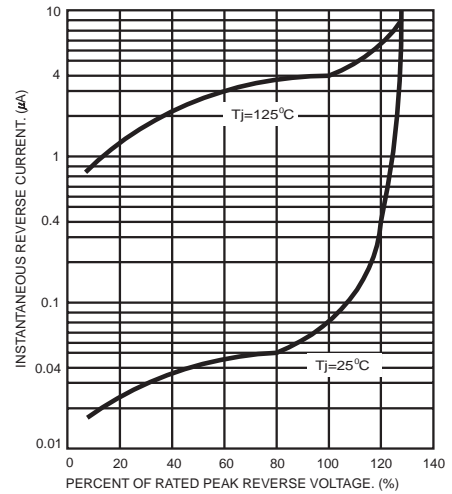
- Notes:
1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
  2. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.



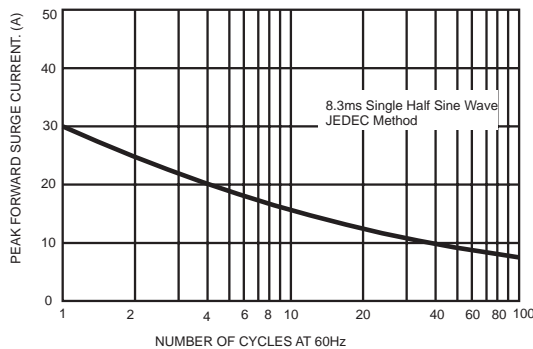
### RATINGS AND CHARACTERISTIC CURVES (1N4001 THRU 1N4007/BY133)



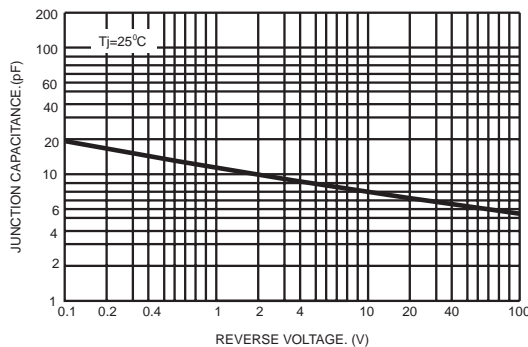
**FIG.2- TYPICAL REVERSE CHARACTERISTICS**



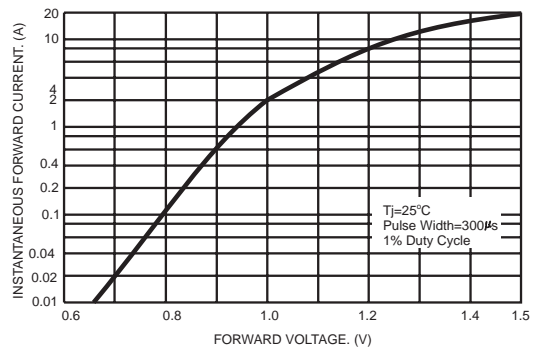
**FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



**FIG.5- TYPICAL FORWARD CHARACTERISTICS**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
DO-41	5000/AMMO	50000	42X28X31	14.00	12.00