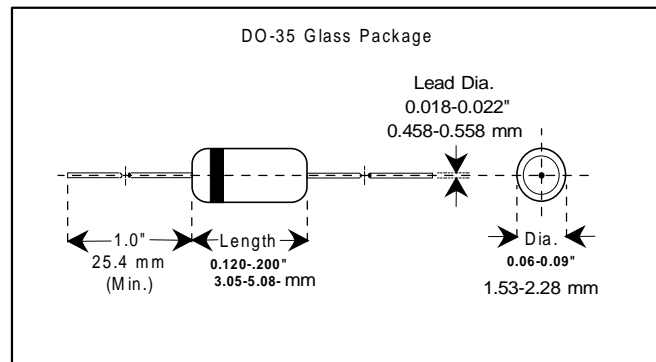


Use Advantages

- Used as a general purpose rectifier in power supplies, or for clipping and steering applications.
- High performance alternative to small signal diodes where space does not permit use of power rectifiers.
- May be used in hostile environments where hermeticity and reliability are important i.e. (Military and Aero/Space). MIL-S- 19500/ 240 approvals. Available up to JANTXV-1 level.
- "S" level screening capability to Source Control Drawings.

Features

- Six Sigma quality
- Humidity proof glass
- Metallurgically bonded
- Thermally matched system
- No thermal fatigue
- High surge capability
- Sigma Bond™ plated contacts
- 100% guaranteed solderability
- (DO-213AA) SMD MELF commercial (LL) and MIL (UR-1) types available



Absolute Maximum Ratings	Symbol	Value	Unit
Power Dissipation at 3/8" from the body, $T_L = 75^\circ\text{C}$	P_{tot}	600	mWatts
Average Forward Rectified Current at $T_L = 75^\circ\text{C}$	I_{AV}	400	mAmps
Operating and Storage Temperature Range	$T_{\text{O\&S}}$	-65 to 175	$^\circ\text{C}$
Thermal Impedance	Z_{cJX}	35	$^\circ\text{C/W}$

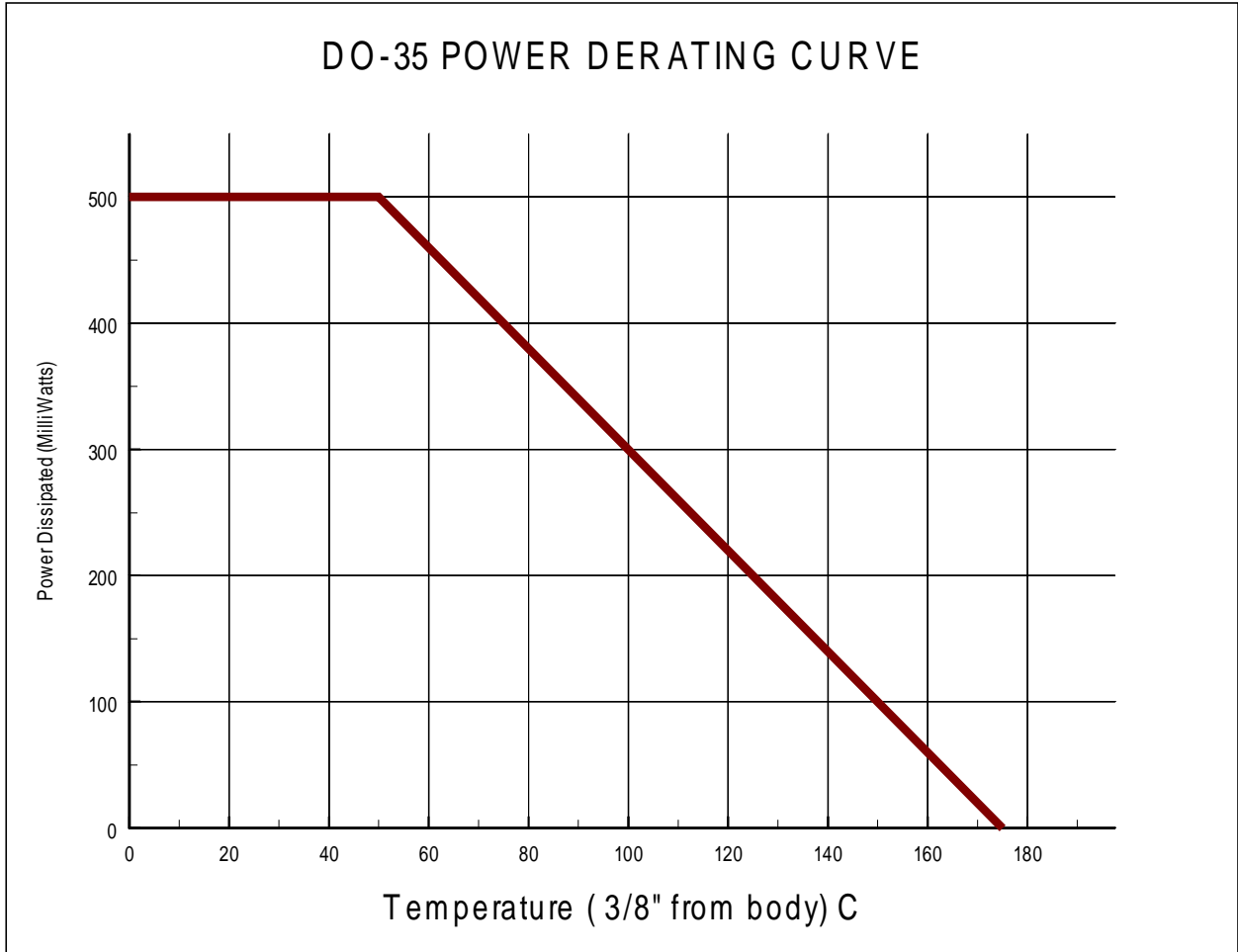
Detail Specifications

Type	Reverse Voltage	Breakdown Voltage (MIN.) @ 100 μA	Maximum Average Rectified Current		Forward Voltage Drop	Maximum Reverse Leakage Current		Maximum Surge Current	Typical Junction Capacitance
	(V_R)	(B_V)	(I_O) 25 $^\circ\text{C}$	(I_O) 150 $^\circ\text{C}$	(V_F) @ $I_F = 400\text{mA}$	(I_R) @ V_R 25 $^\circ\text{C}$	(I_R) @ V_R 100 $^\circ\text{C}$	(I_{FSM}) (NOTE 1)	@ -12V (C_O)
	Volts	Volts	Amps	Amps	Volts	μA	μA	Amps	pF
1N645,-1	225	275	0.4	0.15	1.0	0.2	15	3	9
1N646,-1	300	360	0.4	0.15	1.0	0.2	15	3	9
1N647,-1	400	480	0.4	0.15	1.0	0.2	20	3	9
1N648,-1	500	600	0.4	0.15	1.0	0.2	20	3	9
1N649,-1	600	720	0.4	0.15	1.0	0.2	25	3	9

Note 1: Surge Current @ $T_A = +25^\circ\text{C}$ to $+150^\circ\text{C}$, for 1 Second

For MELF DO-213AA surface mount package, replace "1N" prefix with "LL" for commercial.

DO-35 DERATING (175 C Tj)



Silicon Rectifier Diodes

1N645-1 thru 1N649-1

