Silicon Rectifier Diodes

1N645 to 649
or
1N645-1 to 649-1

DO-35 Glass Package

Use Advantages

Used as a general purpose rectifier in power supplies, or for clipping and steering applications.

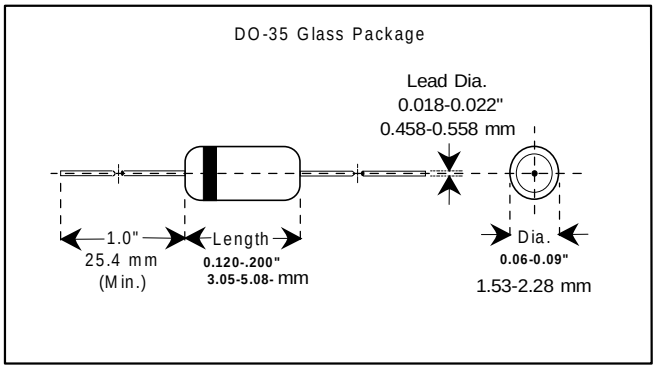
High performance alternative to small signal diodes where space does not permit use of power rectifiers.

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 °C	P_{tot}	600	mWatts
Average Forward Rectified Current at T_L = 75 °C	I_{AV}	400	mAmps
Operating and Storage Temperature Range	$T_{O\&S}$	-65 to 175	°C
Thermal Impedance	Z_{qJX}	35	°C/W

Detail Specifications

Type	Reverse Voltage (V_R) Volts	Breakdown Voltage (MIN.) @ 100µA (B_V) Volts	Maximum Average Rectified Current (I_O) 25° C Amps	Maximum Average Rectified Current (I_O) 150° C Amps	Forward Voltage Drop (V_F) @ I_F = 400mA (MIN.) Volts	Forward Voltage Drop (V_F) @ I_F = 400mA (MAX.) Volts	Maximum Reverse Leakage Current (I_R) @ V_R 25° C µA	Maximum Reverse Leakage Current (I_R) @ V_R 100° C µA	Maximum Surge Current (I_{FSM}) (NOTE 1) Amps	Typical Junction Capacitance @ -12V (C_O) 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° C to +150° C, for 1 Second

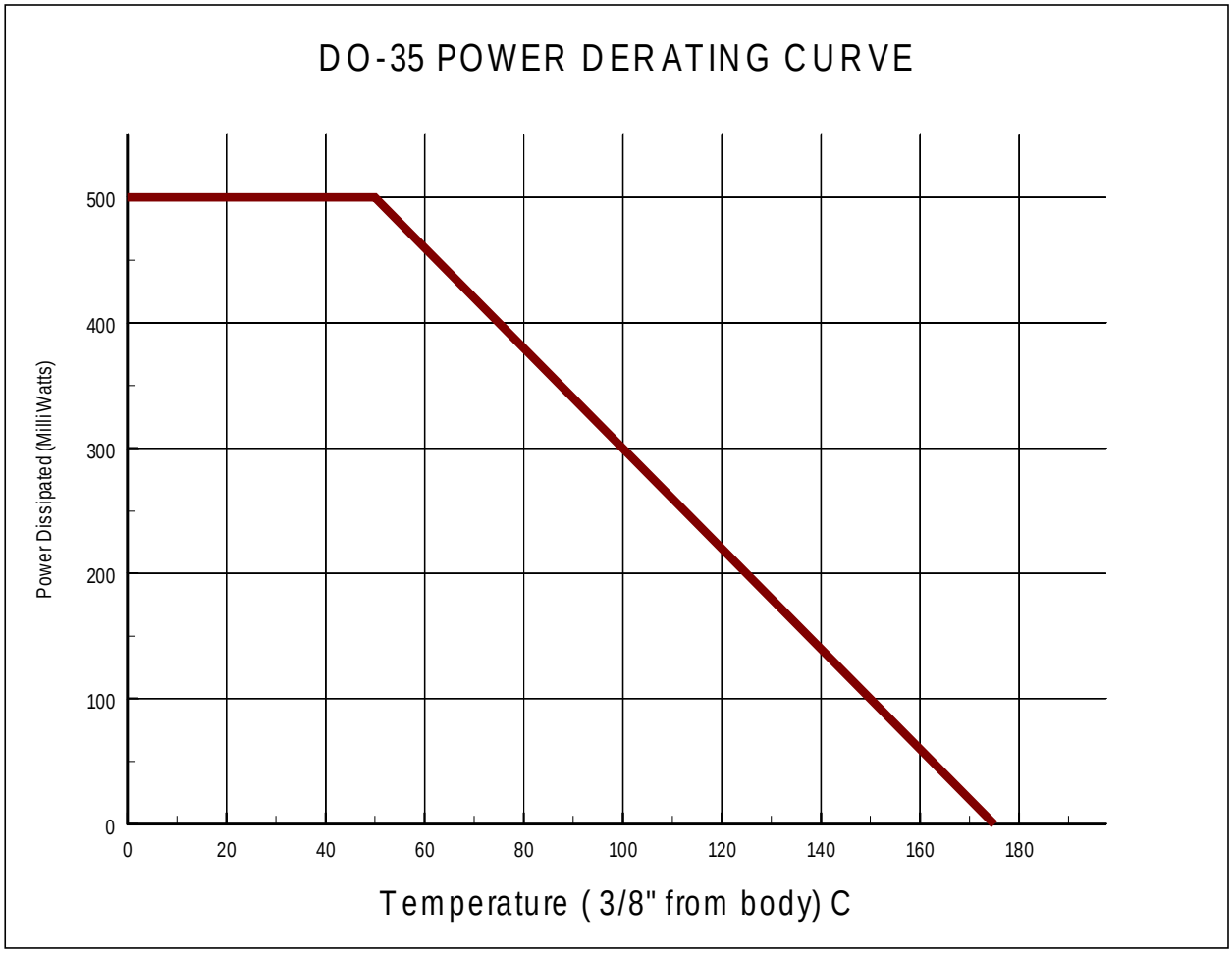
For MELF DO-213AA surface mount package, replace "1N" prefix with "LL" for commercial.

Microsemi

6 Lake Street - Lawrence, MA 01841

Tel: 978-681-0392 - Fax: 978-681-9135

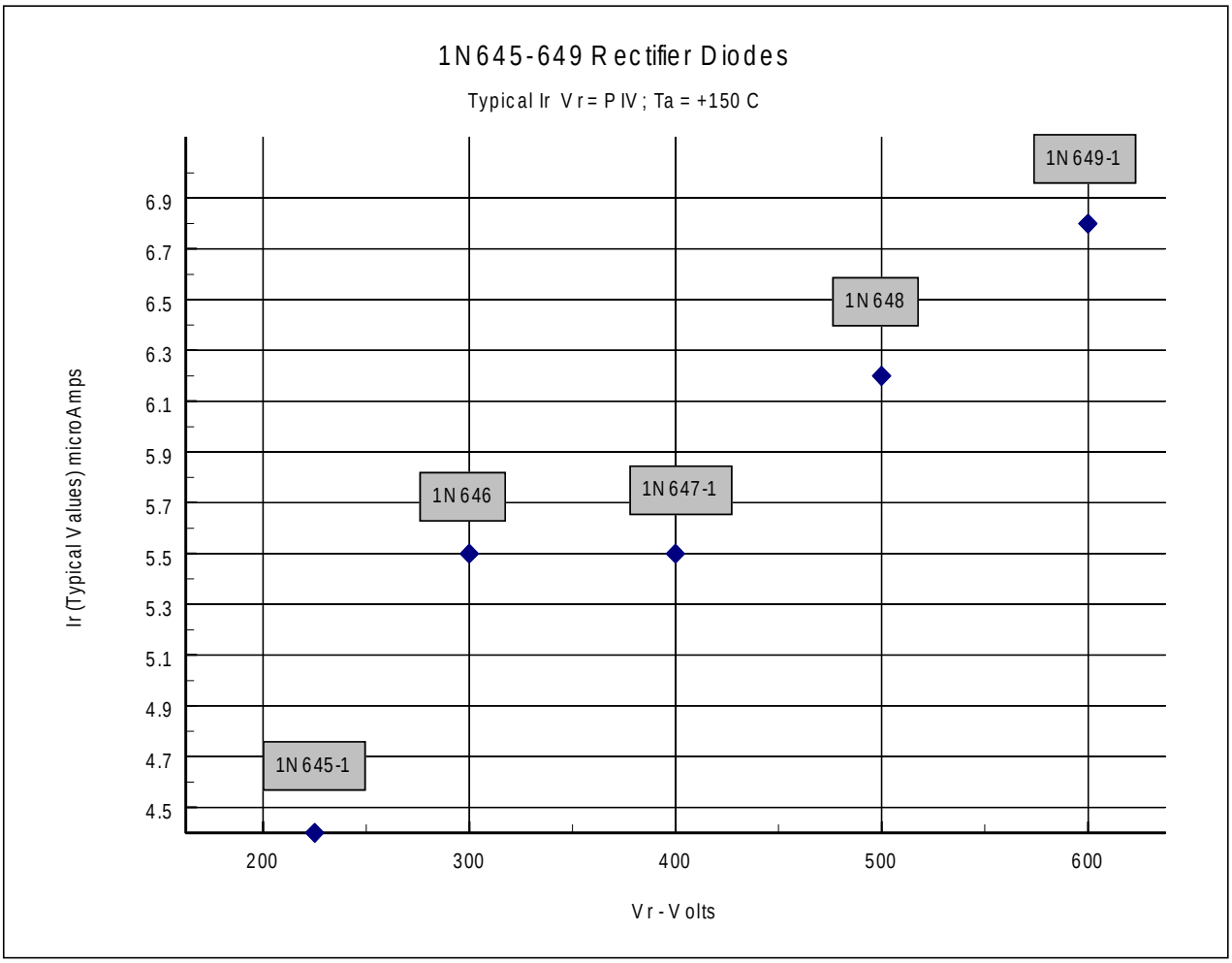
DO-35 DERATING (175 C Tj)



Microsemi
6 Lake Street - Lawrence, MA 01841
Tel: 978-681-0392 - Fax: 978-681-9135

Silicon Rectifier Diodes

1N645-1 thru 1N649-1



Microsemi
6 Lake Street - Lawrence, MA 01841
Tel: 978-681-0392 - Fax: 978-681-9135