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# BAT86

## SMALL SIGNAL SCHOTTKY DIODES

### Features

- Moisture Sensitivity: Level 1 per J-STD-020C
- For general purpose applications
- These diodes features very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- These diode is also available in the Mini-MELF case with type designation LL86
- Metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching
- Make it ideal for protection of MOS devices, and low logic applications.
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

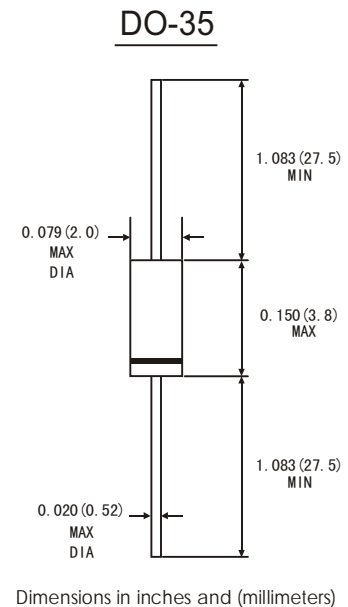
### MECHANICAL DATA

- Weight: Approx. 0.13 gram
- Case: Do-35 glass case
- Marking : Cathode band and type number

### ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	Units
Repetitive Peak Reverse Voltage	$V_R$	50	V
Forward Continuous Current at $T=25^{\circ}\text{C}$	$I_F$	200 <sup>1)</sup>	mA
Repetitive Peak Forward Current at $t < 1\text{s}, \delta < 0.5, T_A = 25^{\circ}\text{C}$	$I_{FRM}$	300 <sup>1)</sup>	mA
Power Dissipation at $T_A = 65^{\circ}\text{C}$	$P_{tot}$	200 <sup>1)</sup>	mW
Junction temperature	$T_J$	125	$^{\circ}\text{C}$
Ambient Operating temperature Range	$T_A$	-55~+125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^{\circ}\text{C}$

1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature



### ELECTRICAL CHARACTERISTICS

	Symbols	Min.	Typ.	Max.	Units
Reverse breakdown voltage Tested with $10\mu\text{A}$ pulses	$V_{(BR)R}$	50			V
Forward voltage Pulse Test $t_p < 300\mu\text{s}, \delta < 2\%$ at $I_F = 0.1\text{mA}$ , at $I_F = 1\text{mA}$ , at $I_F = 10\text{mA}$ , at $I_F = 30\text{mA}$ , at $I_F = 100\text{mA}$	$V_F$ $V_F$ $V_F$ $V_F$ $V_F$		0.200 0.272 0.365 0.460 0.700	0.300 0.380 0.450 0.600 0.900	V V V V V
Leakage current $V_R = 25\text{V}$	$I_R$		0.2	0.5	$\mu\text{A}$
Junction Capacitance at $V_R = 1\text{V}, f = 1\text{MHz}$	$C_J$			8	pF
Reverse recovery time Form $I_F = 10\text{mA}, I_R = 10\text{mA}, I_R = 1\text{mA}$	$t_{rr}$			5	ns
Thermal resistance junction to ambient Air	$R_{\theta JA}$			300 <sup>1)</sup>	K/W

1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature(DO-35)

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.