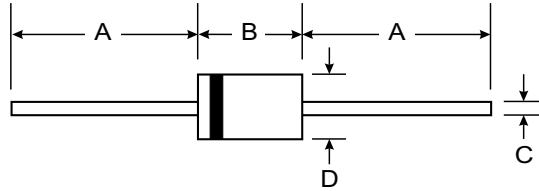


### Features

- Low Forward Voltage Drop
- Fast Switching Speeds
- Guard Ring Construction for Transient Protection
- Surface Mount Versions Available (LL42 / LL43)



### Mechanical Data

- Case: DO-35, Plastic
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Type Number
- Polarity: Cathode Band
- Weight: 0.13 grams (approx.)

DO-35		
Dim	Min	Max
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol			Unit
		BAT42	BAT43	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30		V
Working Peak Reverse Voltage	V <sub>RWM</sub>			
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>R(RMS)</sub>	21		V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	200		mA
Repetitive Peak Forward Current (Note 1) @ t < 1.0s Duty Cycle < 50%	I <sub>FRM</sub>	500		mA
Non-Repetitive Peak Forward Surge Current @ t = 10ms	I <sub>FSM</sub>	4.0		A
Power Dissipation (Note 1)	P <sub>d</sub>	200		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	500		K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +125		°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition	
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	30	—	—	V	I <sub>RS</sub> = 100μA Pulses	
Maximum Forward Voltage Drop (Note 2)	V <sub>FM</sub>	—	—	1.00	V	I <sub>F</sub> = 200mA I <sub>F</sub> = 10mA I <sub>F</sub> = 50mA I <sub>F</sub> = 2.0mA I <sub>F</sub> = 15mA	
		All Types	—	—			0.40
		BAT42	—	—			0.65
		BAT43	0.26	—			0.33
		BAT43	—	—			0.45
Maximum Peak Reverse Current (Note 2)	I <sub>RM</sub>	—	—	0.50 100	μA	V <sub>R</sub> = 25V V <sub>R</sub> = 25V, T <sub>j</sub> = 100°C	
Junction Capacitance	C <sub>j</sub>	—	10	—	pF	V <sub>R</sub> = 1.0V, f = 1.0MHz	
Reverse Recovery Time	t <sub>rr</sub>	—	—	5.0	ns	I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω	
Rectification Efficiency	η <sub>v</sub>	80	—	—	%	R <sub>L</sub> = 100Ω, C <sub>L</sub> = 300pF, f = 45MHz, V <sub>RF</sub> = 2.0V	

- Notes: 1. Valid provided that leads are kept at ambient temperature.  
2. t < 300μs, Duty Cycle < 2%.