

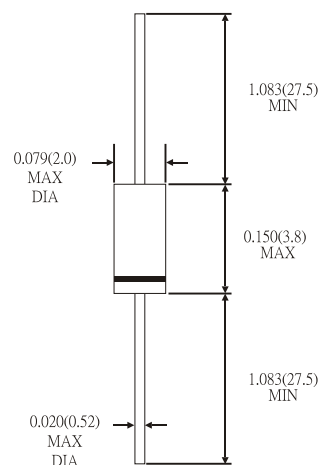
BAT47 THRU BAT48

SMALL SIGNAL SCHOTTKY DIODES

FEATURES

- 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.
- This diode is also available in the Mini-MELF case with the type designation LL47, in the Micro-MELF case with type designation MCL47

DO-35



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case : DO-35 glass case
- Polarity : Color band denotes cathodes end
- Weight : Approx. 0.13 gram

ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value		Units
		BAT47	BAT48	
Repetitive Peak Reverse Voltage	V_{RRM}	20	40	V
Forward Continuous Current at $T_A=25^{\circ}C$	I_F	350 ¹⁾		mA
Repetitive Peak Forward Current at $t_p < 1s, \delta < 0.5, T_A=25^{\circ}C$	I_{FRM}	1 ¹⁾		A
Surge forward current at $t_p < 10mS, T_A=25^{\circ}C$	I_{FSM}	7.5 ¹⁾		A
Power Dissipation ¹⁾ at $T_A=65^{\circ}C$	P_{tot}	330 ¹⁾		mW
Junction temperature	T_J	125		$^{\circ}C$
Ambient Operating temperature Range	T_A	-65 to +125		$^{\circ}C$
Storage Temperature Range	T_{STG}	-65 to +150		$^{\circ}C$

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

ELECTRICAL CHARACTERISTICS

	Symbols	BAT47	BAT48	Units
Reverse breakdown voltage Tested with 10 μ A Pulses	$V_{(BR)R}$	20	40	V
Maximum Forward voltage				
Pulse Test $t_p < 300\mu s, \delta < 2\%$				
at $I_F=0.1mA,$	V_F	0.25	0.25	V
at $I_F=10mA,$	V_F	0.40	0.40	V
at $I_F=300mA$	V_F	1.0	0.90	V
Maximum Leakage current				
pulse test $t_p < 300\mu s, \delta < 2\%$				
at $V_R=10V$	I_R	4	2	μA
at $V_R=10V, T_J=60^{\circ}C$	I_R	20	15	μA
at $V_R=20V$	I_R	10	5	μA
at $V_R=20V, T_J=60^{\circ}C$	I_R	30	25	μA
at $V_R=40V$	I_R		25	μA
at $V_R=40V, T_J=60^{\circ}C$	I_R		50	μA
Typical Capacitance at $V_R=1V, f=1MHz$	C_J	12	12	pF
Maximum Thermal resistance junction to ambient Air	$R_{\theta JA}$	300 ¹⁾	300 ¹⁾	K/W

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

RATINGS AND CHARACTERISTIC CURVES BAT47 THRU BAT48

