SEMICONDUCTOR

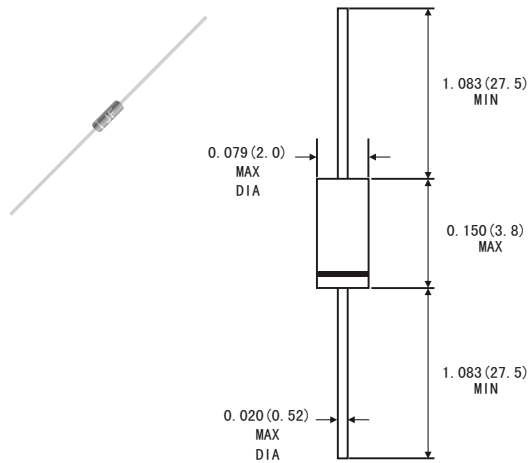
BAT41

SMALL SIGNAL SCHOTTKY DIODES

FEATURES

- For general porpose applications
- This diode features very low turn-on voltage and high breakdown voltage.
- These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- The diode is also available in the MinMELF case with type designation LL41.
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

DO-35



Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: DO-35 glass case
- *Polarity:*color band denotes cathode end
- *Weight*: Approx. 0.13 gram

ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Forward Continuous Current at T_A=25˚C	I_F	100 [1)]	mA
Repetitive Peak Forward Current at t_p<1s, δ<0. 5 T_A=25˚C	I_{FRM}	350 [1)]	mA
Surge Forward Current at t_p<10ms , T_A=25˚C	I_{FSM}	750 [1)]	mA
Power Dissipation at T_A=65˚C	P_{tot}	400 [1)]	mW
Junction Temperature	T_J	125	℃
Ambient Operating Temperature Range	T_A	-65 to+125	℃
Storage Temperature Range	T_{STG}	-65 to+150	℃
1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature			

ELECTRICAL CHARACTERISTICS

	Symbols	Min.	Typ.	Max.	Unis
Reverse Breakdown Voltage Tested with 100μA/300μsPulses	$V_{(BR)R}$	100	110		V
Forward voltage Pulse Test t_p< 300μs at I_F=1mA I_F=200mA	V_F V_F		0.4	0.45 1.0	V V
Leakage current pulse test t_p<300μs at V_R=50V,T_J=25℃ at V_R=50V,T_J=100℃	I_R I_R			100 20	nA μA
Junction Capacitance at V_R=1V ,f=1MHz	C_J		2		pF
Reverse Recovery Time Form I_F=10mA,to I_R=10mA to I_R=1mA R_L=100Ω	trr			5	ns
Thermal Resistance Junction to Ambien Air	$R_{\theta JA}$			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 BAT41

Figure 1. Forward current versus forward voltage at different temperatures(typical values)

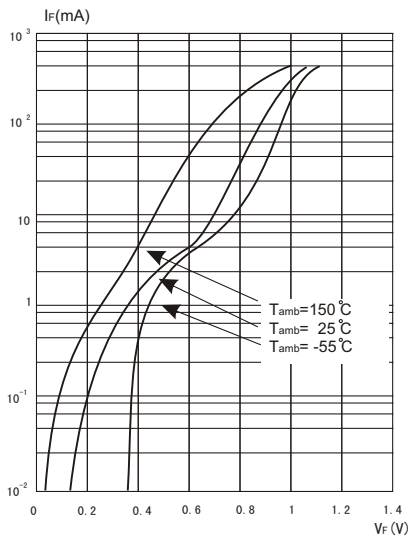


Figure 2.Reverse current versus ambient temperature

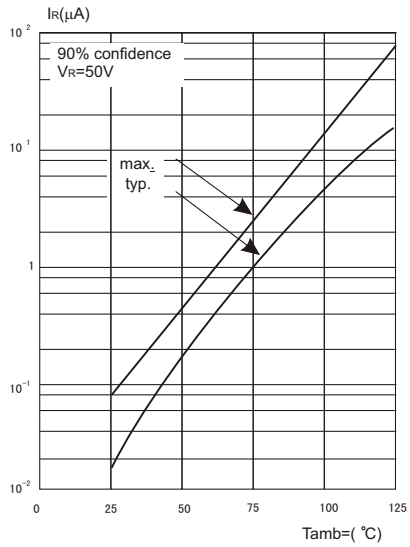


Figure 3.Reverse current versus continuous Reverse voltage(typical values)

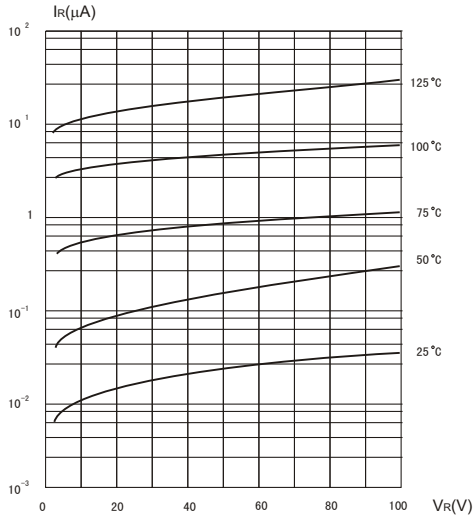


Figure 4.Capacitance C_J versus revers applied voltage V_R (typical values)