

SMALL SIGNAL SCHOTTKY DIODES

VOLTAGE RANGE: 100 V
CURRENT: 0.15 A

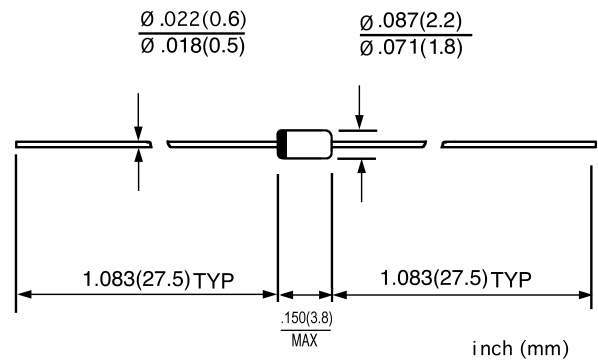
FEATURES

- ◇ 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
- ◇ These diodes is Iso available in the SOD - 123 case with type designation BAT46W and in the MiniMELF case wyht type designations LL46

MECHANICAL DATA

- ◇ Case:JEDEC DO--35,glass case
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: Approx. 0.13 gram

DO - 35(GLASS)



ABSOLUTE RATINGS

Parameter	Symbol	Value	UNITS
Repetitive peak reverse voltage	V_R	100.0	V
Forw ard continuius current @ $t_{amb}=25^{\circ}\text{C}$	I_F	150 ¹⁾	mA
Repetitive peak forw ard current @ $t_p<1s, \delta \leq 0.5, T_A=25^{\circ}\text{C}$	I_{FRM}	350 ¹⁾	mA
Surge forw ard current @ $t_p<10ms, T_A=25^{\circ}\text{C}$	I_{FSM}	750 ¹⁾	mA
Pow er dissipation ¹⁾ @ $T_A=65^{\circ}\text{C}$	P_{tot}	150 ¹⁾	mW
Thermal resistance juncton to ambient air	$R_{\theta JA}$	300 ¹⁾	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_J	125	$^{\circ}\text{C}$
Ambient operating temperature range	T_A	-65 ---+ 125	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-65 ---+ 150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	UNITS
Reverse breakdow n voltage	V_R	$I_R = 100 \mu\text{A}(\text{pulsed})$	100.0			V
Leakage current pulse test $t_p<300 \mu\text{s}, \delta < 2\%$	I_R	$V_R = 1.5\text{V}$ $V_R = 1.5\text{V}, T_j=60^{\circ}\text{C}$ $V_R = 10\text{V}$ $V_R = 10\text{V}, T_j=60^{\circ}\text{C}$ $V_R = 50\text{V}$ $V_R = 50\text{V}, T_j=60^{\circ}\text{C}$ $V_R = 75\text{V}$ $V_R = 75\text{V}, T_j=60^{\circ}\text{C}$			0.5 5.0 0.8 7.5 2.0 15.0 5.0 20.0	μA
Forw ard voltage pulse test $t_p<300 \mu\text{s}, \delta < 2\%$	V_F	$I_F = 0.1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 250\text{mA}$			0.25 0.45 1.0	V
Junction capacitance	C_J	$V_R = 0\text{V}, f=1\text{MHz}$ $V_R = 1\text{V}, f=1\text{MHz}$		10 6		pF

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

**FIG.1 – FORWARD CURRENT VERSUS FORWARD VOLTAGE
AT DIFFERENT TEMPERATURES (TYPICAL VALUES)**

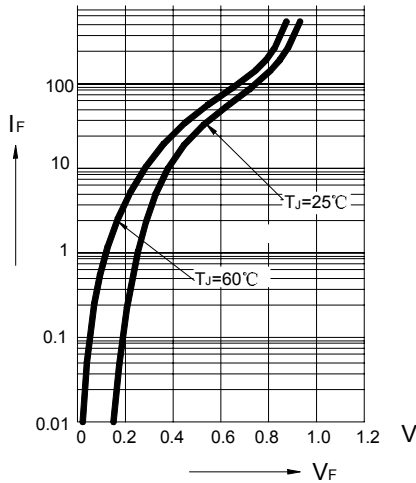


FIG.2 – FORWARD CURRENT VERSUS FORWARD VOLTAGE (TYPICAL VALUES)

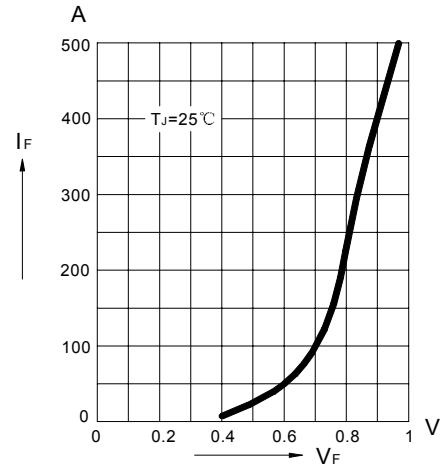


FIG.3 – REVERSE CURRENT VERSUS JUNCTION TEMPERATURE (TYPICAL VALUES)

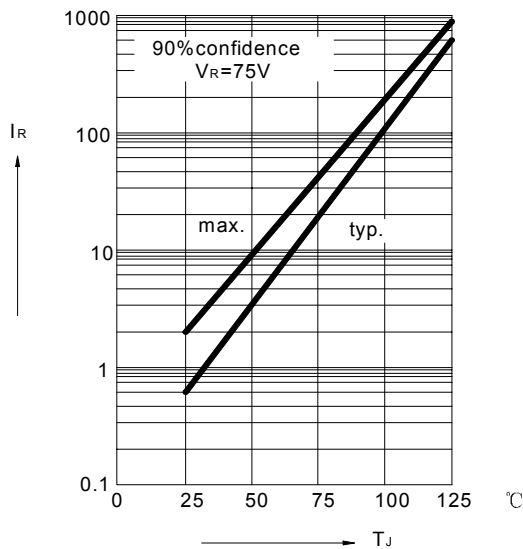


FIG.4 – REVERSE CURRENT VERSUS CONTINUOUS REVERSE VOLTAGE

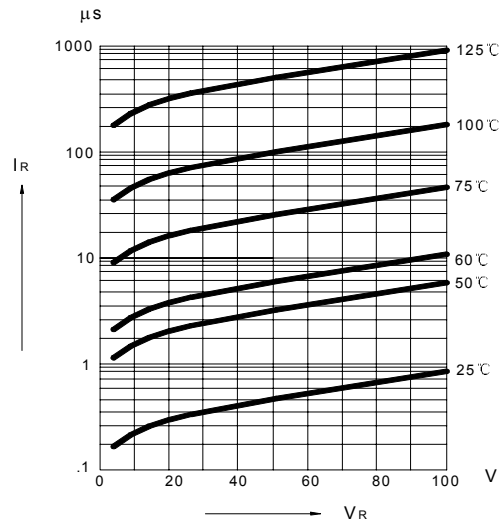


FIG.5 – CAPACITANCE C VERSUS REVERSE APPLIED VOLTAGE V_R (TYPICAL VALUES)

