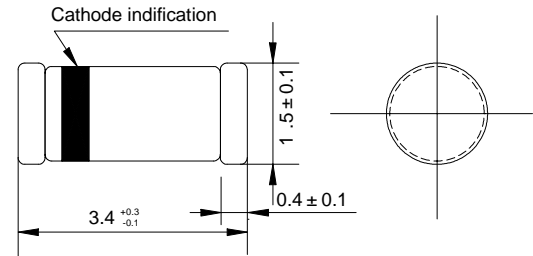




VOLTAGE RANGE: 50 V
CURRENT: 0.2 A
Mini-melf

Features

- ◇ For general purpose applications
- ◇ This diode 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



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC mini-melf, glass case
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: Approx. 0.031 grams

ABSOLUTE RATINGS

	Symbols	Value	UNITS
Continuous reverse voltage	V_R	50	V
Forward continuous current @ $T_A=25^\circ\text{C}$	I_F	200 ¹⁾	mA
Peak forward current @ $T_A=25^\circ\text{C}$	I_{FM}	500 ¹⁾	mA
Surge forward current @ $t_p < 1\text{s}, T_A=25^\circ\text{C}$	I_{FSM}	5 ¹⁾	A
Power dissipation @ $T_A=65^\circ\text{C}$	P_{tot}	200 ¹⁾	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	V_R	50.0			V
Forward voltage Pulse test $t_p < 300 \mu\text{s}, \delta < 2\%$ @ $I_F=0.1\text{mA}$ @ $I_F=1\text{mA}$ @ $I_F=10\text{mA}$ @ $I_F=30\text{mA}$ @ $I_F=100\text{mA}$	V_F			0.30 0.38 0.45 0.60 0.90	V V V V V
Leakage current $V_R=40\text{V}$	I_R			5.0	μA
Diode capacitance at $V_R=1\text{V}, f=1\text{MHz}$	C_d			8	pF
Reverse recovery time @ $I_F=10\text{mA}, I_R=10\text{mA}, I_R=1\text{mA}$	t_{rr}			5	ns
Thermal resistance junction to ambient	$R_{\theta JA}$			430 ¹⁾	$^\circ\text{C/W}$

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

Ratings AND Characteristic Curves

FIG.1 – ADMISSIBLE POWER DISSIPATION VS. AMBIENT TEMPERATURE

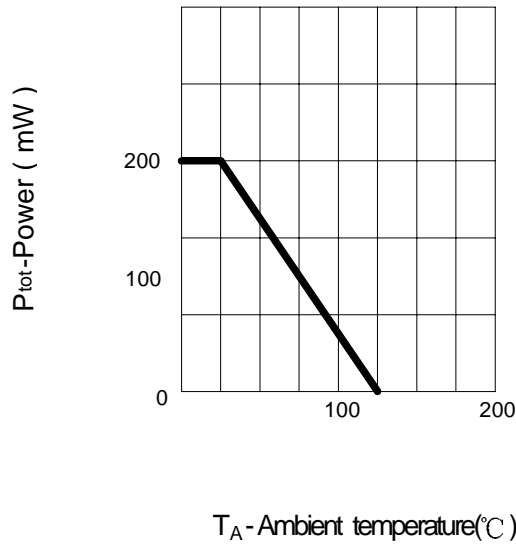


FIG. 2 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

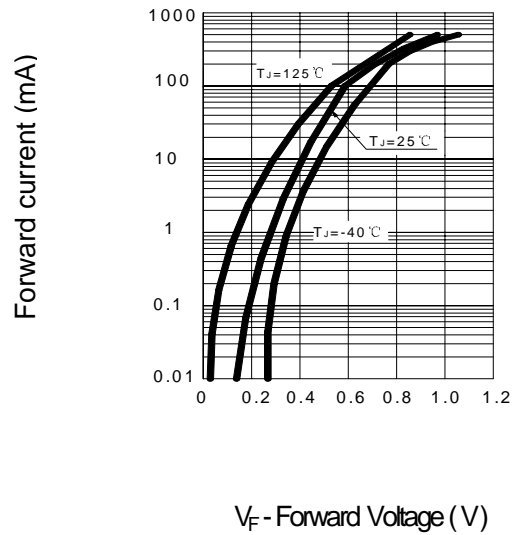


FIG. 3 – TYPICAL REVERSE CHARACTERISTICS

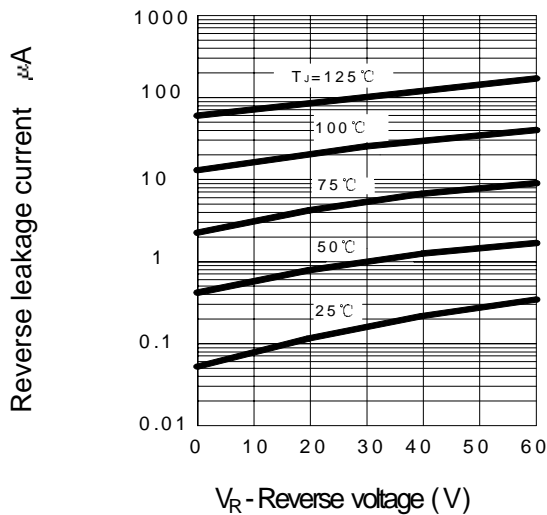


FIG.4 – TYPICAL JUNCTION CAPACITANCE

