SMALL SIGNAL SCHOTTKY DIODES

VOLTAGE RANGE: 70V
POWER DISSIPATION: 400 mW

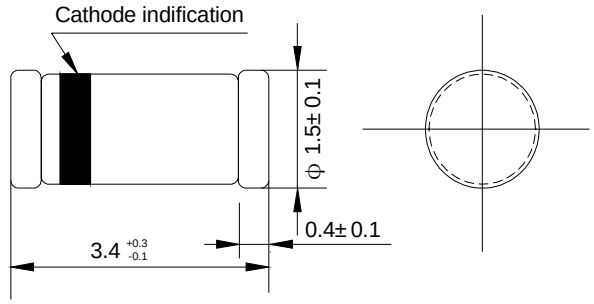
FEATURES

- ◇ For general purpose applications
- ◇ Metal silicon schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices,steering,biasing and coupling diodes for fast switching and low logic level applications

MECHANICAL DATA

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

MINI-MELF



Dimensions in millimeters

ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	UNITS
Peak reverse voltage	V_{RRM}	70.0	V
Power dissipation (Infinite Heat Sink)	P_{tot}	400[1)]	mW
Maximum single cycle surge 10μs square wave	I_{FSM}	2.0	A
Junction tenperature	T_J	125	℃
Storage temperature range	T_{STG}	-55 ---+ 150	℃
1)Valid provided that leads at a distance of 4mm from case are kept at ambient temperature			

ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified)

	Symbols	Min.	Typ.	Max.	UNITS
Reverse breakdown voltage @ I_R=10μA	V_R	70.0			V
Leakage current @ V_R=50V	I_R			200.0	nA
Forward voltage drop @ I_F=1mA I_F=15mA	V_F			0.41 1.0	V
Junction capacitance @ V_R=0V,f=1MHz	C_J			2	pF
Reverse recovery time @ I_F=I_R=5mA,recover to 0.1 I_R	t_{rr}			1	ns
Termal resistance junction to ambient air	$R_{\theta JA}$			0.3	℃/mW

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FIG.1 – TYPICAL VARIATION OF FWD. CURRENT VS FWD. VOLTAGE FOR PRIMARY CONDUCTION THROUGH THE SCHOTTKY BARRIER

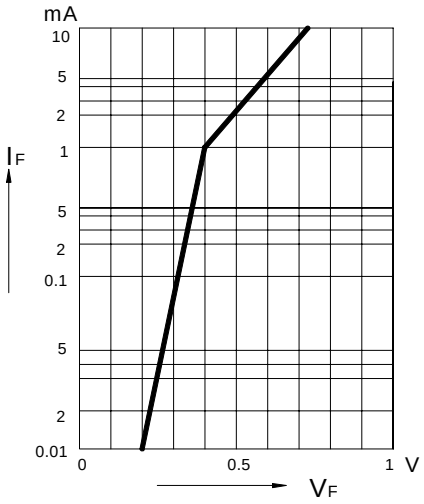

FIG.2 – TYPICAL FORWARD CONDUCTION CURVE OF COMBINATION SCHOTTKY BARRIER AND PN JUNCTION GUARD RING

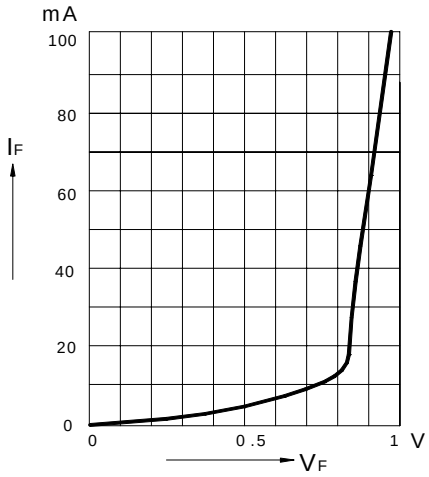

FIG.3 – TYPICAL VARIATION OF REVERSE CURRENT AT VARIATION TEMPERATURES

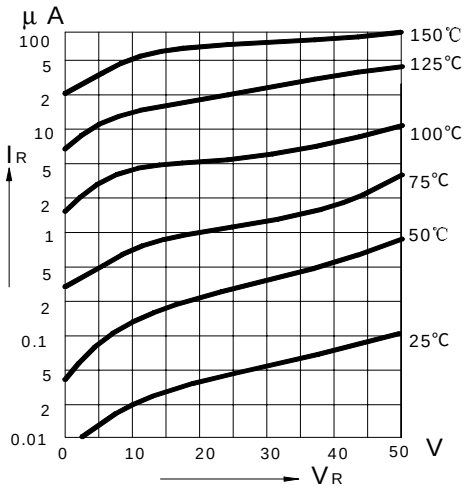

FIG.4 – TYPICAL CAPACITANCE CURVE AS A JUNCTION OF REVERSE VOLTAGE