SM Technology Co., Limited

SOD-323 Plastic-Encapsulate Diodes

SD106WS FAST SCHOTTKY DIODES

FEATURES

- Low turn-on voltage • Fast switching
- Microminiature plastic package
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge.
- Ideal for protection of MOS devices, steering, biasing, and coupling diodes for fast switching and low logic level applications.

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25℃

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	30	V
Forward Current	I_{FM}	200	mA
Forward surge Current t_p=10ms	I_{FSM}	1	A
Power dissipation T_C=25℃	P_{tot}	250	mW
Thermal resistance junction to ambient air	T_{eJA}	500	℃/W
Junction temperature	T_J	150	℃
Storage temperature	T_{STG}	-65~+150	℃

Electrical Ratings @T_A=25℃

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Reverse breakdown voltage	V_R	30			V	IR=100uA
Forward voltage	V_F		260 320 420 490	 550	mV	I_F=2mA I_F=15mA I_F=100mA I_F=200mA
Reverse current	I_R			5	μA	V_R=30V
Capacitance between terminals	C_T			15	pF	V_R=10V,f=1MHz

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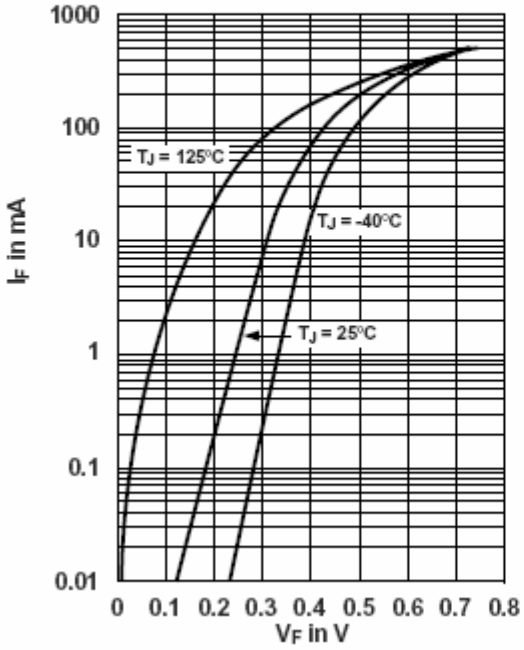
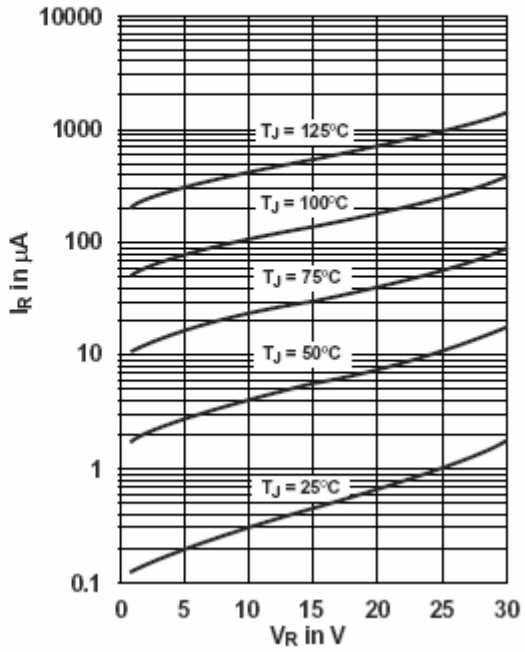
Typical Characteristics

SD106WS

Forward Voltage Forward Current at Various Temperatures (Typical Values)



Typical Variation of Reverse Current at Various Temperatures



Typical Capacitance °C vs. Reverse Applied Voltage V_R