Elektronische Bauelemente

BAS516S

Surface Mount Switching Diode

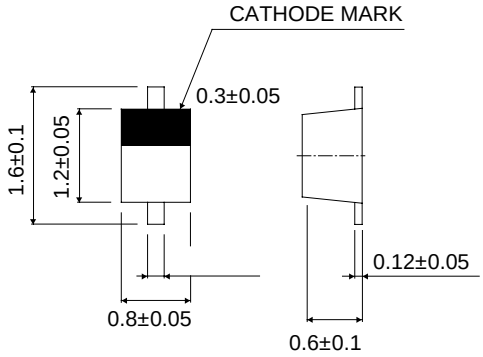
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- High speed switching
- High reliabilty

SOD-523



Dimensions in millimeters

MECHANICAL DATA

- Extremely small surface mounting type. (EMD2)
- High speed. (trr=4ns type.)
- Silicon epitaxial planer

Marking: 61

MAXIMUM RATINGS (T_J = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
Peak reverse voltage	V_{RRM}	85	Volts
DC reverse voltage	V_R	75	Volts
Mean rectifying current	I_o	250	mA
Peak forward current	I_{FM}	500	mA
Surge current (1s)	I_{surge}	500	mA
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	-55 to +125	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Symbol	Parameter	Condition	Max.	Unit
V_F	forward voltage			
		I_F = 1 mA	715	mV
		I_F = 10 mA	855	mV
		I_F = 50 mA	1	V
		I_F = 150 mA	1.25	V
I_R	reverse current			
		V_R = 25 V	30	nA
		V_R = 75 V	1	µA
		V_R = 25 V; Tj = 150°C	30	µA
		V_R = 75 V; T_j = 150°C;	50	µA
C_d	diode capacitance	f = 1 MHz; VR = 0; see Fig.6	1	pF
t_{rr}	reverse recovery time	when switched from IF = 10 mA to IR = 10 mA; R_L = 100 Ω; measured at IR = 1 mA; see Fig.7	4	ns
V_{fr}	forward recovery voltage	when switched from I_F = 10 mA; tr = 20 ns; see Fig.8	1.75	V

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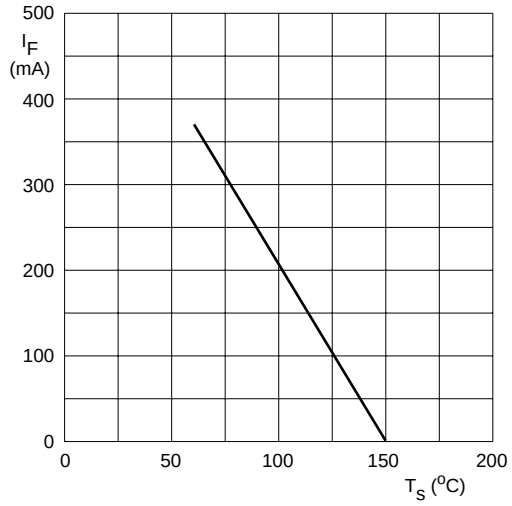

Fig.1 Maximum permissible continuous forward current as a function of soldering point temperature.

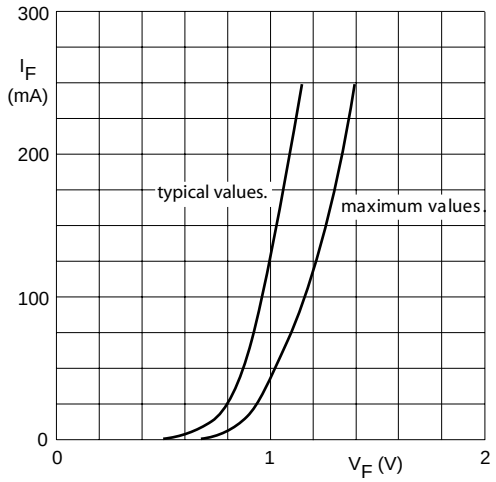

Fig.2 Forward current as a function of forward voltage Tj=25^{o}C

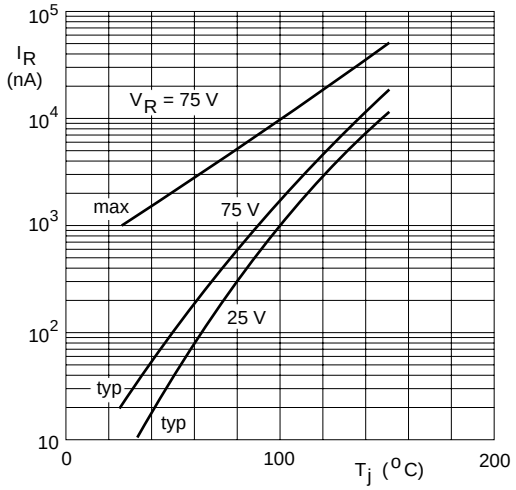

Fig.3 Reverse current as a function of junction temperature.

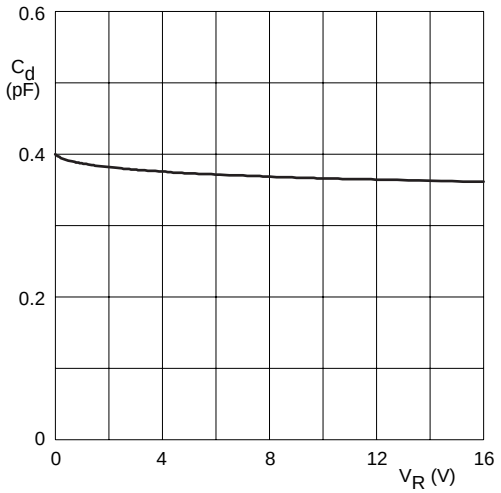

Fig.4 Diode capacitance as a function of reverse voltage; typical values. f = 1 MHz; T_j = 25 °C.