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Vishay Semiconductors

Small Signal Schottky Diode



FEATURES

Integrated protection ring against static discharge



 Material categorization: for definitions of compliance please see www.vishay.com/doc?99912







LINKS TO ADDITIONAL RESOURCES



MECHANICAL DATA

Case: QuadroMELF (SOD-80)
Weight: approx. 34 mg
Cathode band color: black
Packaging codes/options:

GS18/10K per 13" reel (8 mm tape), 10K/box GS08/2.5K per 7" reel (8 mm tape), 12.5K/box

APPLICATIONS

• Applications where a very low forward voltage is required

PARTS TABLE					
PART TYPE DIFFERENTIATION		ORDERING CODE	CIRCUIT CONFIGURATION	REMARKS	
BAS285	V _R = 30 V	BAS285-GS18 or BAS285-GS08	Single	Tape and reel	

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Reverse voltage		V_R	30	V		
Peak forward surge current	t _p = 10 ms	I _{FSM}	5	Α		
Repetitive peak forward current	t _p ≤1 s	I _{FRM}	300	mA		
Forward current		l _F	200	mA		
Average forward current		I _{FAV}	200	mA		

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Junction to ambient air	On PC board 50 mm x 50 mm x 1.6 mm	R _{thJA}	320	K/W		
Junction temperature		Tj	125	°C		
Storage temperature range		T _{stg}	-65 to +150	°C		

ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
	I _F = 0.1 mA	V _F			240	mV
	I _F = 1 mA	V_{F}			320	mV
Forward voltage	I _F = 10 mA	V_{F}			400	mV
	$I_F = 30 \text{ mA}$	V _F			500	mV
	$I_F = 100 \text{ mA}$	V_{F}			800	mV
Reverse current	$V_R = 25 \text{ V}, t_p = 300 \mu\text{s}$	I _R			2.3	μA
Diode capacitance	V _R = 1 V, f = 1 MHz	C _D			10	pF



TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

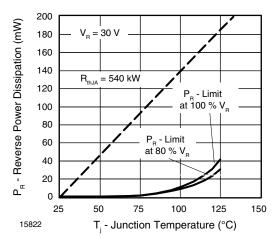


Fig. 1 - Max. Reverse Power Dissipation vs. Junction Temperature

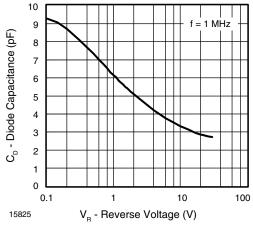


Fig. 4 - Diode Capacitance vs. Reverse Voltage

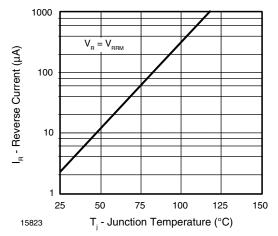


Fig. 2 - Reverse Current vs. Junction Temperature

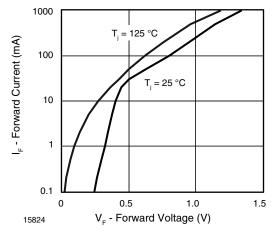
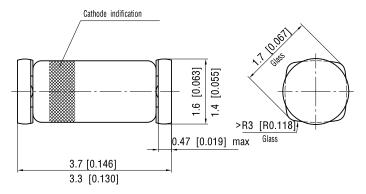


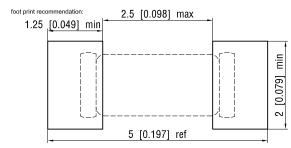
Fig. 3 - Forward Current vs. Forward Voltage



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PACKAGE DIMENSIONS in millimeters (inches): QuadroMELF (SOD-80)





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