

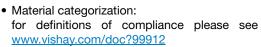
Vishay Semiconductors

Small Signal Switching Diodes, Low Leakage Current



FEATURES

- Silicon planar diodes
- Very low reverse current







APPLICATIONS

Protection circuits, time delay circuits, peak follower circuits, logarithmic amplifiers

DESIGN SUPPORT TOOLS click logo to get started



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

PARTS TABLE							
PART	TYPE DIFFERENTIATION	ORDERING CODE	TYPE MARKING	CIRCUIT CONFIGURATION	REMARKS		
BAQ133	V _{RRM} = 40 V	BAQ133-GS18 or BAQ133-GS08	-	Single	Tape and reel		
BAQ134	V _{RRM} = 70 V	BAQ134-GS18 or BAQ134-GS08	-	Single	Tape and reel		
BAQ135	V _{RRM} = 140 V	BAQ135-GS18 or BAQ135-GS08	-	Single	Tape and reel		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	PART	SYMBOL	VALUE	UNIT	
		BAQ133	V_{RRM}	40	V	
Repetitive peak reverse voltage		BAQ134	V_{RRM}	70	V	
		BAQ135	V_{RRM}	140	V	
		BAQ133	V_{R}	30	V	
Reverse voltage		BAQ134	V _R	60	V	
		BAQ135	V _R	125	V	
Peak forward surge current	t _p = 1 μs		I _{FSM}	2	Α	
Forward continuous current			I _F	200	mA	

THERMAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT		
Thermal resistance junction to ambient air	On PC board 50 mm x 50 mm x 1.6 mm	R _{thJA}	500	K/W		
Junction temperature		T _j	175	°C		
Storage temperature range		T _{stg}	-65 to +175	°C		



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ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)							
PARAMETER	TEST CONDITION	PART	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I _F = 100 mA		V _F			1	V
	E ≤ 300 lx, rated V _R		I _R		1	3	nA
	$E \le 300$ lx, rated V_R , $T_j = 125$ °C		I _R			0.5	μΑ
Reverse current	E ≤ 300 lx, V _R = 15 V	BAQ133	I _R		0.5	1	nA
	E ≤ 300 lx, V _R = 30 V	BAQ134	I _R		0.5	1	nA
	$E \le 300 Ix, V_R = 60 V$	BAQ135	I _R		0.5	1	nA
	$I_R = 5 \mu A, t_p/T = 0.01,$ $t_p = 0.3 \text{ ms}$	BAQ133	V _(BR)	40			V
Breakdown voltage		BAQ134	V _(BR)	70			V
		BAQ135	V _(BR)	140			V
Diode capacitance	V _R = 0, f = 1 MHz		C _D			3	pF

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

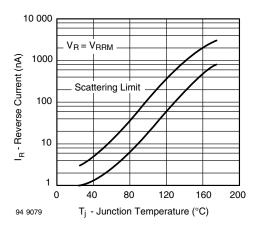


Fig. 1 - Reverse Current vs. Junction Temperature

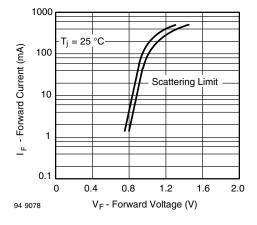


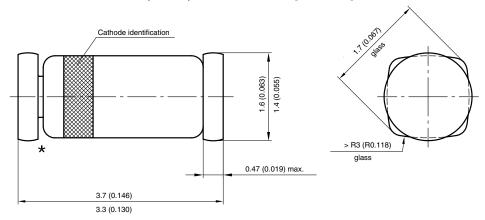
Fig. 2 - Forward Current vs. Forward Voltage



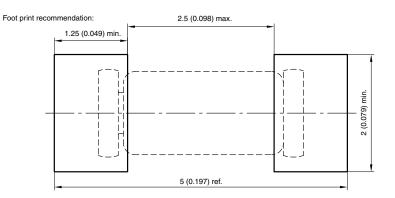
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PACKAGE DIMENSIONS in millimeters (inches): QuadroMELF (SOD-80)



★ The gap between plug and glass can be either on cathode or anode side



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