



Micro Commercial Components



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**LS103A  
LS103B  
LS103C**

## Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Small surface mounting type(Quadro Melf)
- High reliability
- Low reverse current and low forward voltage
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Applications

- Low current rectification and high speed switching

## Maximum Ratings\*

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V <sub>R</sub>	40	V
LS103A		30	V
LS103B		20	V
LS103C			
Power Dissipation at T <sub>amb</sub> =25°C	P <sub>D</sub>	400	mW
Forward current	I <sub>FM</sub>	350	mA
Repetitive peak forward current t <sub>p</sub> ≤ 1 s	I <sub>FRM</sub>	1	A
Storage Temperature Range	T <sub>STG</sub>	-65 to 175	°C
Thermal Resistance( Junction to Ambient)	R <sub>thJA</sub>	300	K/W

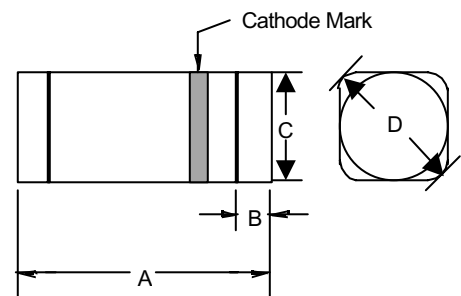
## Electrical Characteristics @ 25°C Unless Otherwise Specified

	Symbol	Maximum	Unit
Forward Voltage I <sub>F</sub> =20mA I <sub>F</sub> =200mA	V <sub>F</sub>	0.37 0.60	V
Reverse current V <sub>R</sub> =30V LS103A V <sub>R</sub> =20V LS103B V <sub>R</sub> =10V LS103C	I <sub>R</sub>	5 5 5	uA
Diode capacitance V <sub>R</sub> =V <sub>F</sub> =0, f=1MHz	C <sub>D</sub>	50	pF
Reverse recovery time I <sub>F</sub> =I <sub>R</sub> =20mA to 0.1I <sub>R</sub>	t <sub>rr</sub>	10	ns

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.

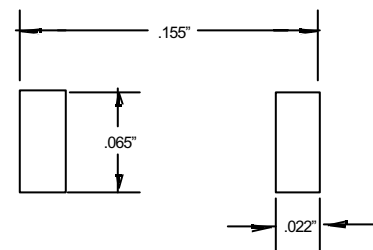
**350mA Schottky  
Barrier Diode  
20~40Volt**

Quadro MELF



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.130	.146	3.30	3.70	
B	.008	.016	.20	.40	
C	.055	.063	1.40	1.60	∅
D	.067		1.70		

SUGGESTED SOLDER  
PAD LAYOUT



**Characteristics** ( $T_j=25^\circ\text{C}$  unless otherwise specified)

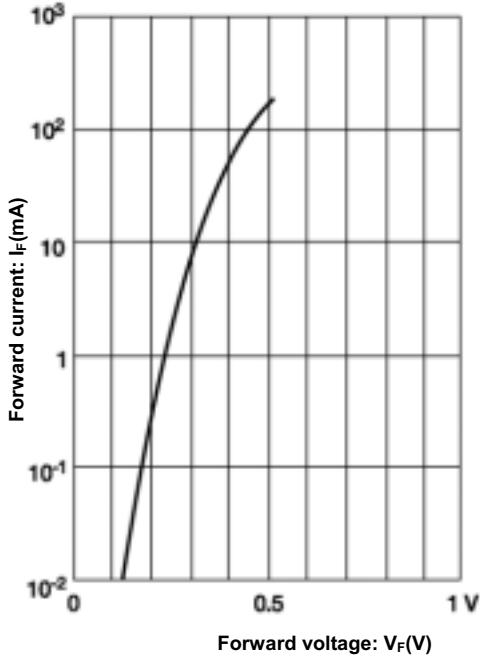


Figure 1. Typical variation of forward current vs. forward voltage for primary conduction through the schottky barrier

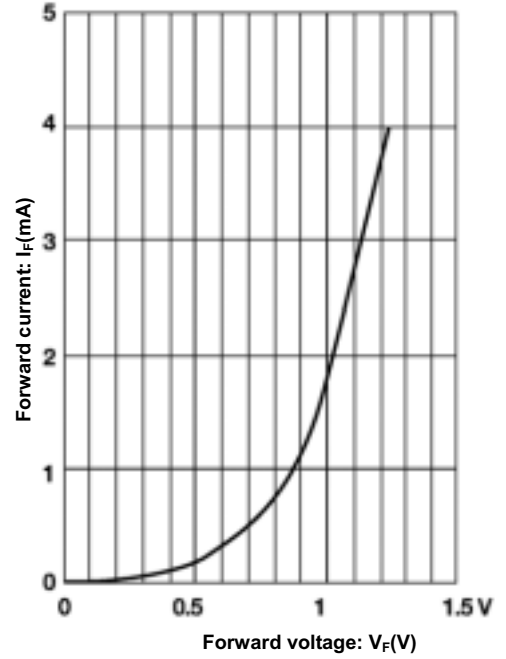


Figure 2. Typical high current forward conduction curve  $t_p=300\text{ms}$ , duty cycle=2%

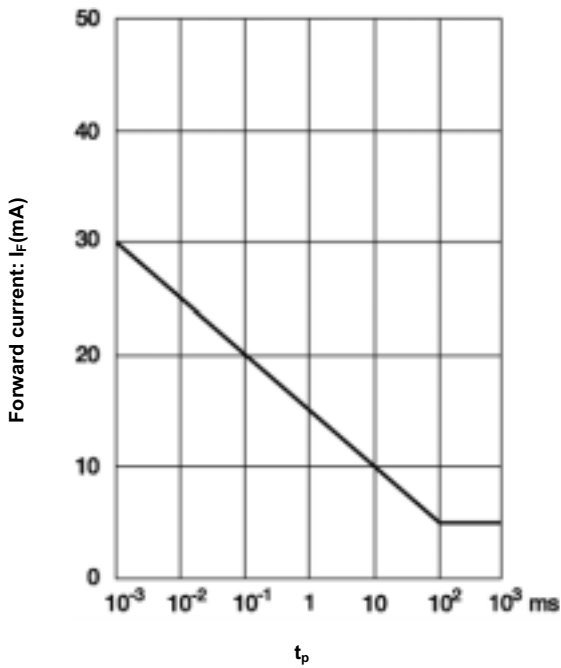


Figure 3. Typical non repetitive forward surge current vs. pulse width

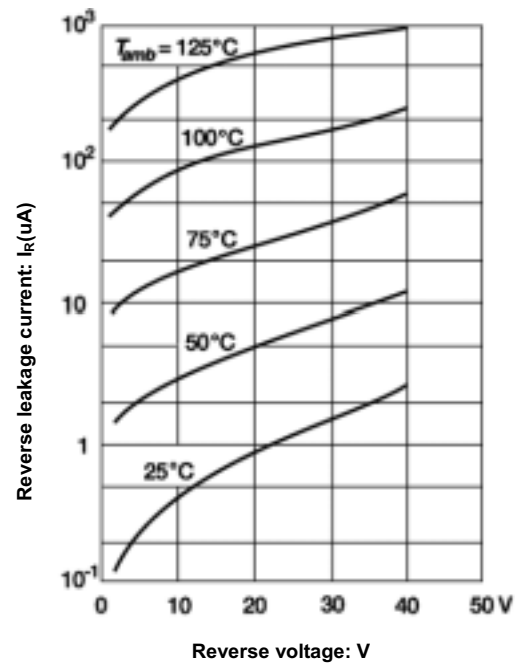


Figure 4. Typical variation of reverse current at various temperatures

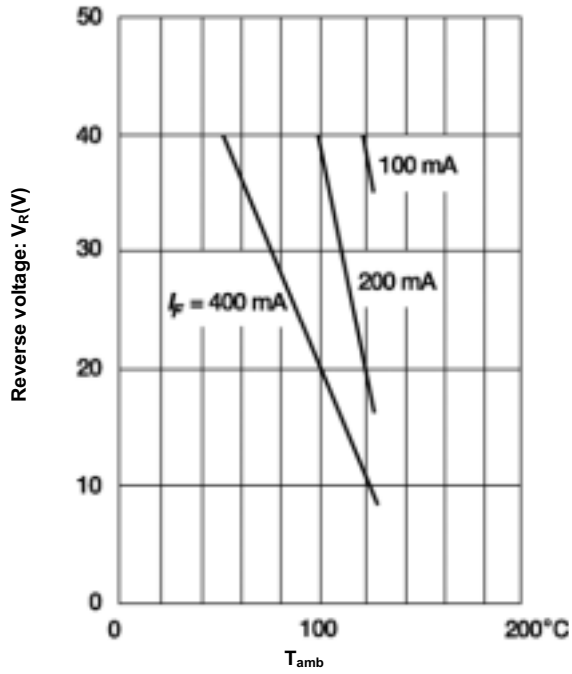


Figure 5. Blocking voltage duration vs. temperature at various average forward current

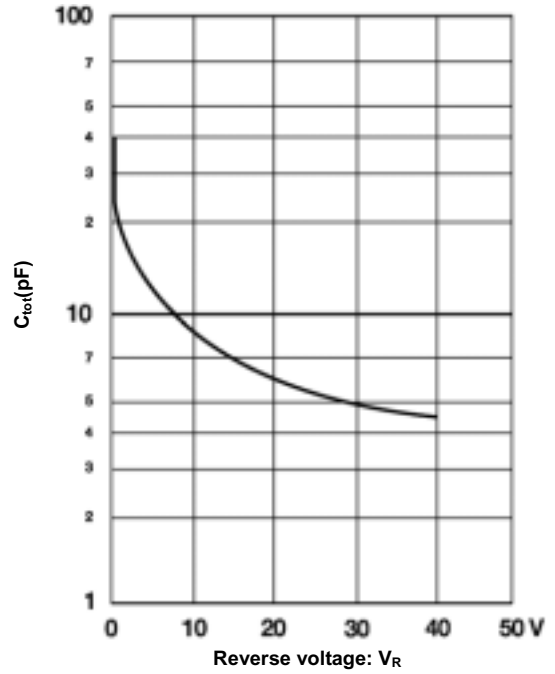


Figure 6. Typical capacitance vs. reverse voltage



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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