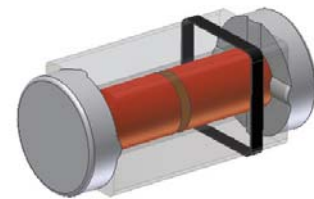


## 500mW QUADRO Mini-MELF Hermetically Sealed Glass Fast Switching Diodes

### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	500	mW
$T_{STG}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	+150	$^\circ\text{C}$
$W_{IV}$	Working Inverse Voltage	75	V
$I_O$	Average Rectified Current	150	mA
$I_{FM}$	Non-repetitive Peak Forward Current	450	mA
$I_{FSURGE}$	Peak Forward Surge Current	2	A

These ratings are limiting values above which the serviceability of the diode may be impaired.



Cathode Band Color : Black

### Specification Features:

- Fast Switching Device ( $T_{RR} < 4.0$  nS)
- QUADRO Mini-MELF Package
- Surface Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Terminals Are Readily Solderable
- RoHS Compliant
- Matte Tin (Sn) Lead Finish
- Color band Indicates Negative Polarity



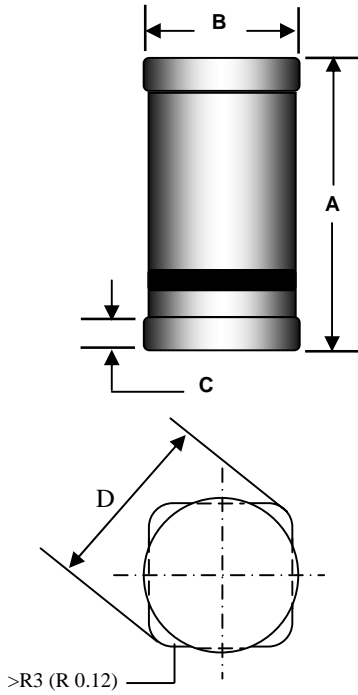
ELECTRICAL SYMBOL

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
$B_V$	Breakdown Voltage	$I_R=100\mu\text{A}$	100		Volts
		$I_R=5\mu\text{A}$	75		
$I_R$	Reverse Leakage Current	$V_R=20\text{V}$		25	nA
		$V_R=75\text{V}$		5	$\mu\text{A}$
$V_F$	Forward Voltage	TCLS4448, TCLS914B $I_F=5\text{mA}$	0.62	0.72	Volts
		TCLS4148 $I_F=10\text{mA}$		1.0	
		TCLS4448, TCLS914B $I_F=100\text{mA}$		1.0	
$T_{RR}$	Reverse Recovery Time	$I_F=I_R=10\text{mA}$ $R_L=100\Omega$ $I_{RR}=1\text{mA}$		4	nS
$C$	Capacitance	$V_R=0\text{V}$ , $f=1\text{MHz}$		4	pF

**Package Outline**

**Case Outline**



DIM	QUADRO Mini-MELF			
	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.35	0.45	0.014	0.018
D	Typical 1.8		Typical 0.071	

**Notes:**

1. JEDEC DO-213 AA
2. Polarity Denoted by a Band.

## **NOTICE**

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.takcheong.com>, or consult your nearest Tak Cheong's sales office for further assistance.