

# Miniature Reflective Object Sensor

## QRE1113, QRE1113GR, **QRE1114GR**

#### **Features**

- Phototransistor Output
- No Contact Surface Sensing
- Miniature Package
- Lead Form Style: Gull Wing
- Two Leadform Options:
  - ◆ Through Hole (QRE1113)
  - → SMT Gul Wing (QRE1113GR & QRE1114GR)
- Two Packaging Options:
  - Tube (QRE1113)
  - ◆ Tape and Reel (QRE1113GR & QRE1114GR)
- I<sub>C(ON)</sub> Options:
   0.1 mA min (QRE1113 & QRE1113GR)
   0.3 mA to 0.6 mA (QRE1114GR)

## MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol		Parameter		Value	Unit
T <sub>OPR</sub>	0	perating Temperature		40 to +85	°C
T <sub>STG</sub>	St	orage Temperature		-40 to +90	°C
T <sub>SOL-I</sub>		dering Temperature (Iron) otes 2, 3, 4)		240 for 5 s	°C
T <sub>SOL-F</sub>		oldering Temperature (Flow) otes 3, 4)	2	260 for 10 s	°C

#### **EMITTER**

l <sub>F</sub>	Continuous Forward Current	50	mA
V <sub>R</sub>	Reverse Voltage	5	V
I			

## **QRE1113, QRE1113GR, QRE1114GR**

### **ELECTRICAL/OPTICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
INPUT DIODE						
V <sub>F</sub>	Forward Voltage	I <sub>F</sub>				

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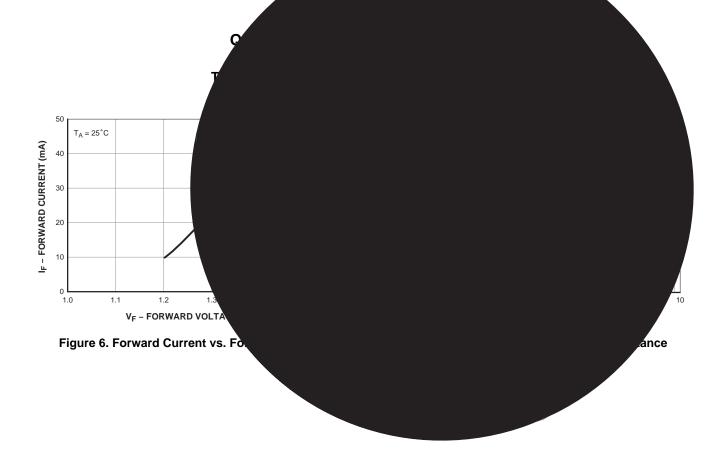


Figure 8. Forward Voltage vs. Ambient Temperature

Figure 9. Radiation Diagram

QRE1113, QRE1113GR, QRE1114GR		

### **QRE1113, QRE1113GR, QRE1114GR**

#### **Precautionary Notes**

- 1. Refer to application note AND8003/D, "Storage and Handling of Dry Packed Surface Mounted Devices" for details of handling procedure.
- 2. Product soldering terminals are silver plated and oxidization may occur with prolonged exposure to ambient environment. Oxidized terminal may have poor solderability performance. Keep unsealed devices in moisture barrier bag sealed with desiccant or in dry cabinet at <5% relative humidity.
- Store PCB in sealed moisture barrier bag together with desiccant or store in dry cabinet at <5% relative humidity. Mounted device that has been exposed to ambient environment for long period of time may suffer moisture related damage if PCB is subjected to subsequent high temperature processes.

# REFLECTIVE RECTANGULAR THROUGH HOLE CASE 100AQ ISSUE O

DATE 30 SEP 2016

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### Notes:

1. Dimensions for all drawings ar

# ARUSM-313 / REFL CTIVE RECTANGULAR SURFACE MOUNT CASE 100CY ISSUE O

(0.3358) FL DATE 31 JAN 2017

NOTE

1.00

0.94

.20

0.94

1.63

0.40

0.17 0.07 1.70 1.50

1.10 0.•

