



# PRODUCT SPECIFICATION

**Model No : CSQ-5244E/5245E**

Descriptions:
<ul style="list-style-type: none"> <li>• 0.52 Inch Quad Digit Display</li> <li>• CSQ-5244: Common Anode</li> <li>• CSQ-5245: Common Cathode</li> <li>• Emitting Color: Orange</li> </ul>



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			

**CHINA SEMICONDUCTOR CORPORATION**  
 Address: 2FL. NO.909, Chung-Cheng Road,  
 Chung-Ho City Taipei Hsien, Taiwan.

**OPTO PLUS TECHNOLOGIES CO.,LTD**  
 Address: 696 Shun jiang Rd., Ji Shan St. Shaoxing,  
 ZheJiang, China

Tel: 886-2-2223-9696  
 Fax: 886-2-2223-9377

Tel: 86-0575-88623888  
 Fax: 86-0575-88623112



**Model No : CSQ-5244/5245E**

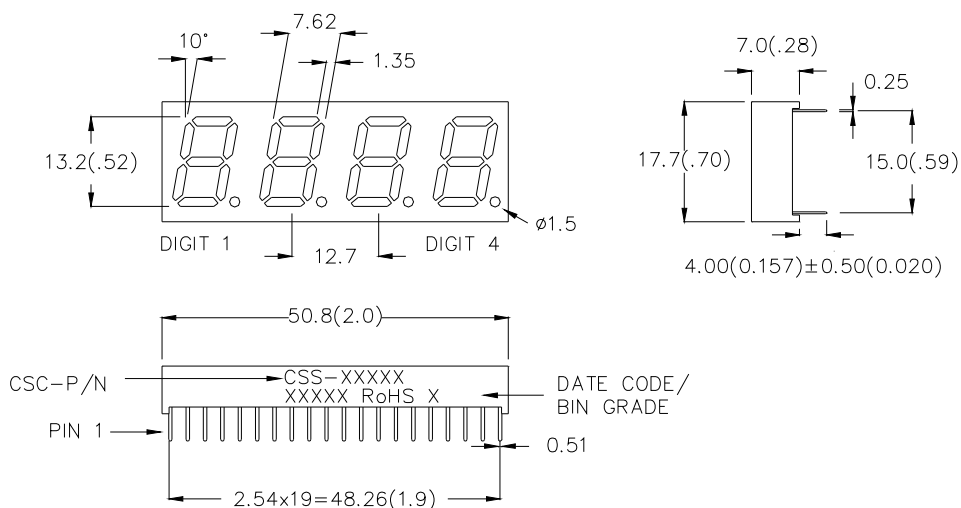
**Features -**

1. 0.52 inch (13.2mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

**Device Selection Guide -**

Part No.	Chip		Description
	Material	Emitted Color	
CSQ-5244E	GaAsP	Orange	Common Anode
CSQ-5245E	GaAsP	Orange	Common Cathode

**Package Dimensions -**

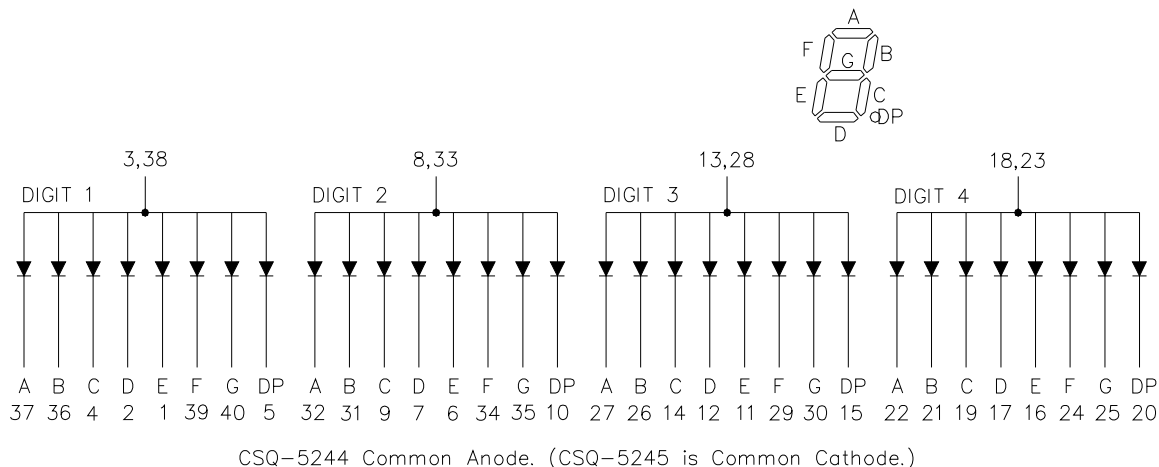


NOTE:  
Dimension in millimeter (inch), and tolerance is  $\pm 0.25$  (.01) unless otherwise noted.



Model No : CSQ-5244/5245E

Internal Circuit Diagrams -



Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	PAD	70	mW
Continuous Forward Current Per Dice	IAF	25	mA
Peak Current Per Dice(duty cycle 1/10, 1kHz)	IPF	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	Topr	-35 ~ +85	°C
Storage Temp.	Tstg	-35 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			



Model No : CSQ-5244/5245E

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V <sub>F</sub>	-	2.0	2.8	V	I <sub>F</sub> =20mA
Luminous Intensity Per Segment	I <sub>v</sub>	-	4	-	ucd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λ <sub>p</sub>	-	632	-	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	-	624	-	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	-	35	-	nm	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	-	-	100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	I <sub>V-m</sub>	-	-	2:1	-	I <sub>F</sub> =10mA



Model No : CSQ-5244/5245E

■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

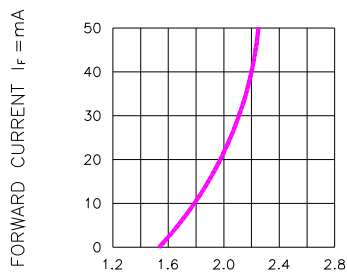


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

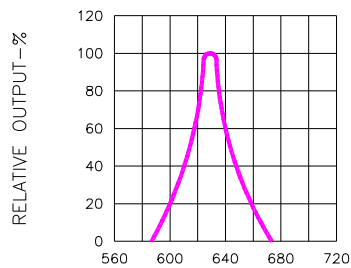


Fig.2 SPECTRAL RESPONSE

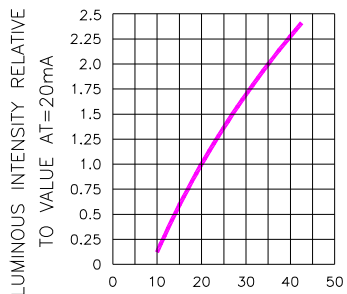


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

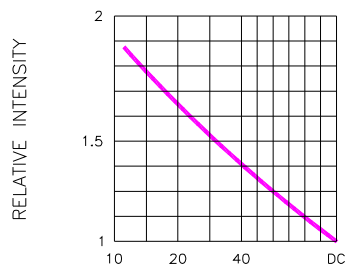


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

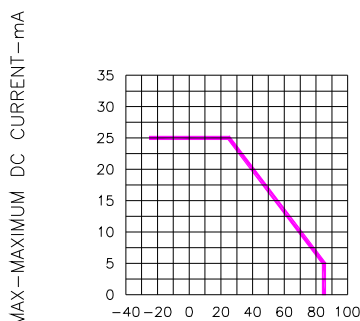


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

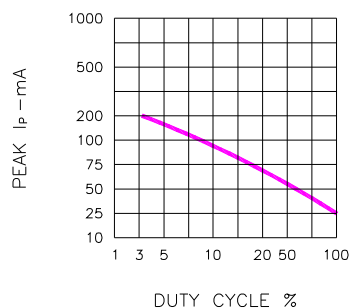
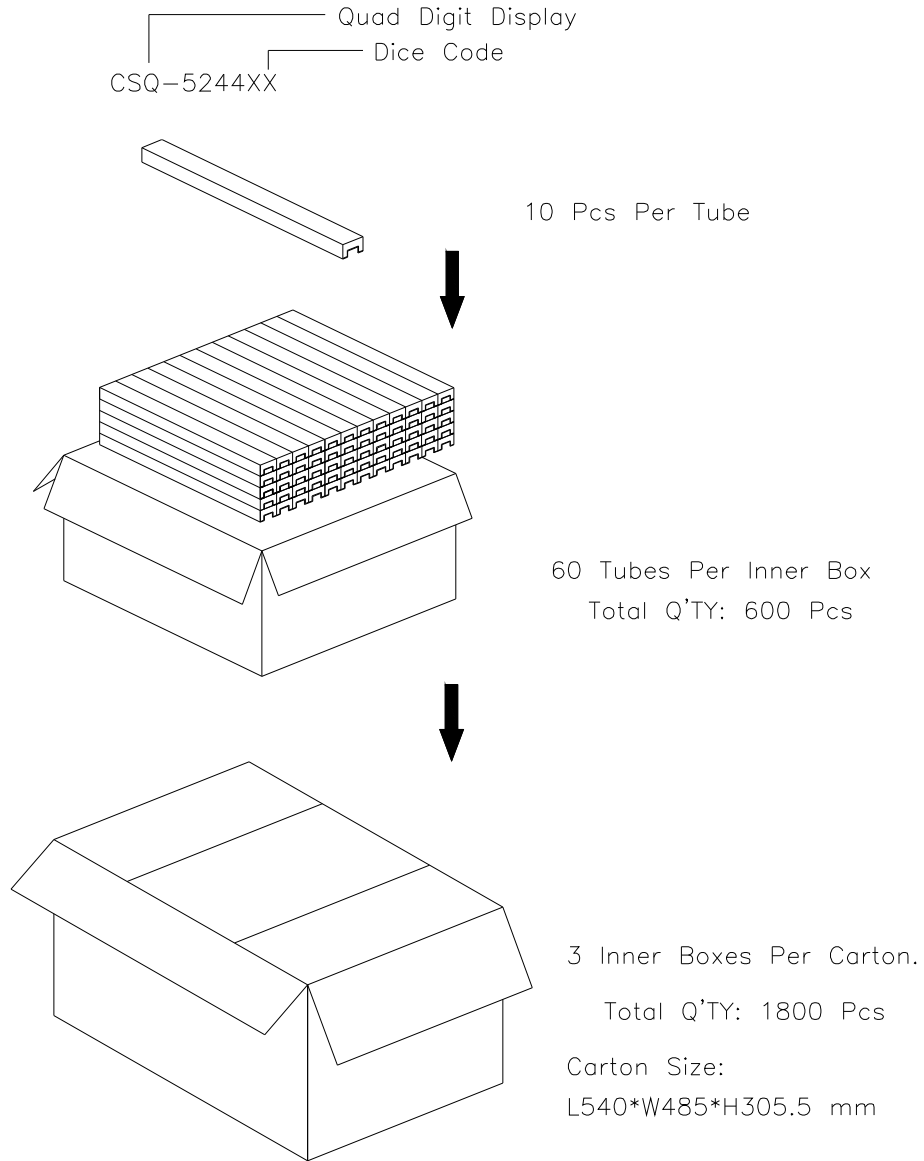


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)



Model No: CSQ-5244/5245E

### Package Dimensions



Note: The specifications are subject to change without notice. Please contact us for updated information.  
<http://www.csctw.com.tw>