

# PRODUCT CHANGE NOTICE

1. TITLE <b>RIC7S113 SEE Characteristics</b>		2. DOCUMENT NUMBER <b>FV5-C-22-0010</b>
		3. DATE <b>January 17, 2022</b>

4. MANUFACTURER AND ADDRESS <b>International Rectifier HiRel Products, Inc 205 Crawford Street Leominster, MA 01453</b>	5. MANUFACTURER PART NUMBER <b>See Document</b>
	6. BASE PART <b>RIC7S113</b>
	7. NATIONAL STOCK NUMBER (NSN) <b>Not Available</b>

8. CAGE <b>69210</b>	9. EFFECTIVE DATE <b>January 17, 2022</b>	10. GOVERNMENT NUMBER <b>Not Available</b>
-------------------------	--	---

11. POINT OF CONTACT <b>Manufacturer's Representative or Account Specialist (978) 534-5776</b>	12. DRAWING NUMBER <b>Not Available</b>
	13. SPECIFICATION NUMBER <b>MIL-PRF-38535 / Class B and Class S</b>

14. PRODUCT CHANGE  
This GIDEP PCN is to announce a correction in the Single Event Effects (SEE) ion beam test characteristics based on recalculation for the following International Rectifier RadHard IC part number. Note that this change is related to a part specification correction only, and not due to a die physical change.

**RIC7S113C4, RIC7S113A4, RIC7S113E4, RIC7S113L4**  
RadHard High and Low Side 400V MOSFET and IGBT Gate Driver



Radiation Characteristics listed in Table 11:

- For Kr Ion:
- change LET from 27.2 to **27.8** MeV·cm<sup>2</sup>/mg
  - change Energy from 1089 to **1084** MeV
  - change Range from 143 to **139.8** μm
  - change V<sub>s</sub> (V) limit at V<sub>B</sub>=17.5V from 375 to **400** V


- For Xe Ion:
- change LET from 50.4 to **54.5** MeV·cm<sup>2</sup>/mg
  - change Energy from 1618 to **1591** MeV
  - change Range from 128.7 to **117.3** μm
  - change V<sub>s</sub> (V) limit at V<sub>B</sub>=10V from 300 to **275** V

**Table 11 Single Event Effect (SEE) Safe Operating Area (SOA)**

Ion	LET (MeV·cm <sup>2</sup> /mg)	Energy (MeV)	Range (μm)	V <sub>CC</sub> , V <sub>DD</sub> (V)	V <sub>s</sub> (V)		
					V <sub>B</sub> =10V	V <sub>B</sub> =15V	V <sub>B</sub> =17.5V
Kr	<del>27.2</del> 27.8	<del>1089</del> 1084	<del>143</del> 139.8	20	400	400	<del>375</del> 400
Xe	<del>50.4</del> 54.5	<del>1618</del> 1591	<del>128.7</del> 117.3	20	<del>300</del> 275	175	125

Reference IR Datasheet PD-97827 for additional part identifier information.

16. APPROVING GOVERNMENT ACTIVITY		
-----------------------------------	--	--

17. GIDEP REPRESENTATIVE <b>Paul Hebert</b>	18. SIGNATURE 	19. DATE <b>January 17, 2022</b>
--	--	-------------------------------------