

PRODUCT CHANGE NOTICE

1. TITLE IRHLF87Y20 / IRHLNM87Y20 SEE Characteristics	2. DOCUMENT NUMBER FV5-C-22-0011
3. DATE January 31, 2022	

4. MANUFACTURER AND ADDRESS International Rectifier HiRel Products, Inc 205 Crawford Street Leominster, MA 01453	5. MANUFACTURER PART NUMBER See below for IR Part Number
6. BASE PART NA	
7. NATIONAL STOCK NUMBER (NSN) NA	

8. CAGE 69210	9. EFFECTIVE DATE January 31, 2022	10. GOVERNMENT NUMBER NA
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11. POINT OF CONTACT Manufacturer's Representative or Account Specialist (978) 534-5776	12. DRAWING NUMBER NA
13. SPECIFICATION NUMBER MIL-PRF-19500	

14. PRODUCT CHANGE
 This GIDEP PCN is to announce a change with the published Single Event Effects (SEE) test response. The new data replaces the typical SEE data with "worst case" SEE responses, used to characterize the following International Rectifier part numbers in heavy ion environment. Note that this change is related to part specification only, and not due to a die physical change.

- IRHLF87Y20**
20V N-Channel TID Hardened MOSFET in a TO-39 package
- IRHLNM87Y20**
20V N-Channel TID Hardened MOSFET in a SMD-0.2 package

Device Characteristics:
 Change From:

Table 7 Typical Single Event Effects Safe Operating Area

LET (MeV/(mg/cm ²))	Energy (MeV)	Range (μm)	V _{DS} (V)					
			V _{GS} = 0V	V _{GS} = -1V	V _{GS} = -2V	V _{GS} = -3V	V _{GS} = -5V	V _{GS} = -10V
37 ± 5%	298 ± 5%	38 ± 5%	18	18	—	—	8	4
60 ± 5%	320 ± 5%	32 ± 7.5%	18	18	15	12	8	—
81 ± 5%	375 ± 7.5%	28 ± 7.5%	18	18	—	12	8	—

To:

Table 7 Worst Case Single Event Effects Safe Operating Area

LET (MeV/(mg/cm ²))	Energy (MeV)	Range (μm)	V _{DS} (V)	
			V _{GS} = 0V	V _{GS} = -1V
40 +/-5%	275 +/-5%	35.6 +/-5%	14	14
64 +/-7.5%	600 +/-12.5%	49 +/-10%	12	12
92 +/-5%	1150 +/-5%	65.1 +/-5%	10	10

Reference IR Datasheet PD-97810 and PD-97811 for additional part identifier information.

	16. APPROVING GOVERNMENT ACTIVITY
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17. GIDEP REPRESENTATIVE Paul Hebert	18. SIGNATURE 	19. DATE January 31, 2022
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