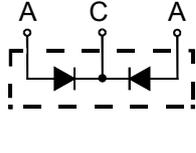
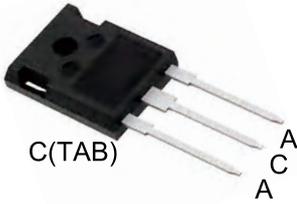


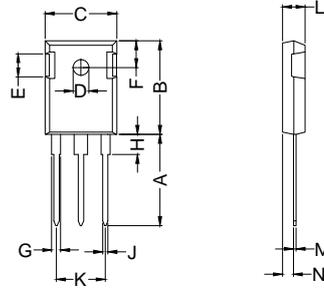
HUR4020PT

Soft Recovery Behaviour High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diodes



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-247AD



| Dim. | Millimeter | | Inches | |
|------|------------|-------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 19.81 | 20.32 | 0.780 | 0.800 |
| B | 20.80 | 21.46 | 0.819 | 0.845 |
| C | 15.75 | 16.26 | 0.620 | 0.640 |
| ØD | 3.15 | 3.65 | 0.124 | 0.144 |
| E | 4.32 | 5.49 | 0.170 | 0.216 |
| F | 5.40 | 6.30 | 0.213 | 0.248 |
| G | 1.65 | 2.18 | 0.065 | 0.086 |
| H | 3.80 | 4.50 | 0.150 | 0.177 |
| J | 1.00 | 1.40 | 0.039 | 0.055 |
| K | 10.80 | 11.10 | 0.425 | 0.437 |
| L | 4.70 | 5.30 | 0.185 | 0.209 |
| M | 0.40 | 0.80 | 0.016 | 0.031 |
| N | 1.50 | 2.49 | 0.059 | 0.098 |

| | V_{RSM} V | V_{RRM} V |
|------------------|----------------|----------------|
| HUR4020PT | 200 | 200 |



| Symbol | Test Conditions | Maximum Ratings | Unit |
|------------------------------------|--|---------------------------------|------------------|
| I_{FAVM} | $T_C=135^\circ\text{C}$; rectangular, $d=0.5$ | Per device 20 Per diode | A |
| I_{FSM} | $T_{VJ}=45^\circ\text{C}$; $t_p=10\text{ms}$ (50Hz), sine | 220 | A |
| E_{AS} | $T_{VJ}=2^\circ\text{C}$; non-repetitive; $I_{AS}=2.5\text{A}$; $L=180\mu\text{H}$ | 0.8 | mJ |
| I_{AR} | $V_A=1.5 \cdot V_R$ typ.; $f=10\text{kHz}$; repetitive | 0.3 | A |
| T_{VJ} T_{VJM} T_{stg} | | -55...+175 175 -55...+150 | $^\circ\text{C}$ |
| P_{tot} | $T_C=25^\circ\text{C}$ | 105 | W |
| M_d | mounting torque | 0.4...0.6 | Nm |
| Weight | typical | 6 | g |



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| Symbol | Test Conditions | Characteristic Values | | Unit |
|--|---|-----------------------|------|------|
| | | typ. | max. | |
| I _R | T _{VJ} =25°C; V _R =V _{RRM} | | 10 | uA |
| | T _{VJ} =150°C; V _R =V _{RRM} | | 0.5 | mA |
| V _F | I _F =20A; T _{VJ} = 25°C | 0.95 | 1.05 | V |
| | I _F =20A; T _{VJ} =150°C | | 1.00 | |
| R _{thJC} R _{thCH} | | 0.35 | 1.0 | K/W |
| t _{tr} | I _F =1A; -di/dt=100A/us; V _R =30V; T _{VJ} =25°C | 20 | | ns |
| I _{RM} | V _R =100V; I _F =20A; -di _F /dt=100A/us; T _{VJ} =100°C | | 2.7 | A |

FEATURES

- * International standard package
- * Planar passivated chips
- * Very short recovery time
- * Extremely low switching losses
- * Low I_{RM}-values
- * Soft recovery behaviour
- * RoHS compliant

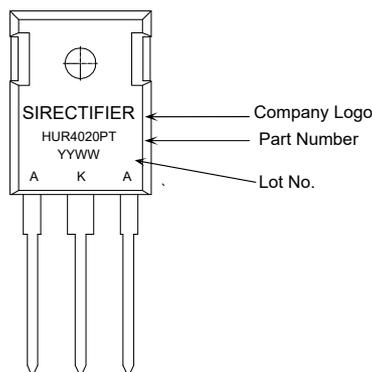
APPLICATIONS

- * Antiparallel diode for high frequency switching devices
- * Antisaturation diode
- * Snubber diode
- * Free wheeling diode in converters and motor control circuits
- * Rectifiers in switch mode power supplies (SMPS)
- * Inductive heating
- * Uninterruptible power supplies (UPS)
- * Ultrasonic cleaners and welders

ADVANTAGES

- * Avalanche voltage rated for reliable operation
- * Soft reverse recovery for low EMI/RFI
- * Low I_{RM} reduces:
 - Power dissipation within the diode
 - Turn-on loss in the commutating switch

MARKING



ORDERING INFORMATION

| Part Number | Package | Shipping | Marking Code |
|-------------|----------|--------------|--------------|
| HUR4020PT | TO-247AD | 30pcs / Tube | HUR4020PT |

Sirectifier®

HUR4020PT

Soft Recovery Behaviour High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diodes

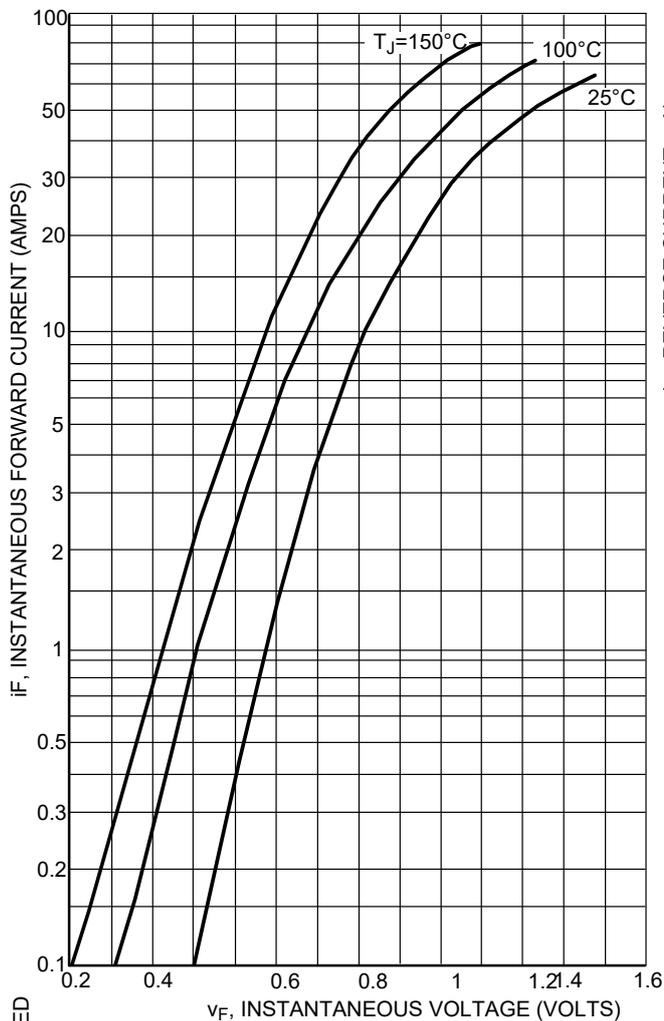


Figure 1. Typical Forward Voltage (Per Leg)

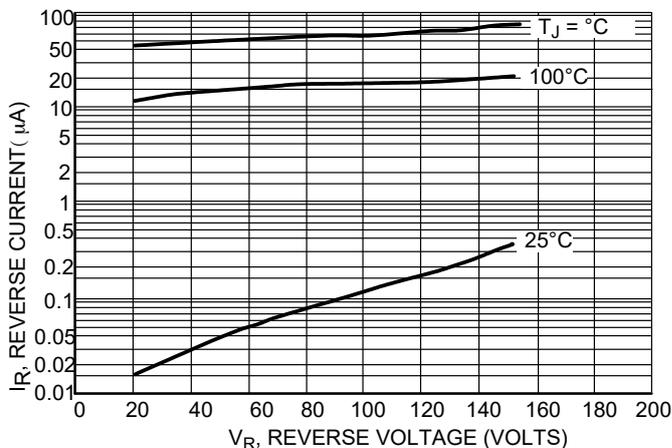


Figure 2. Typical Reverse Current (Per Leg)

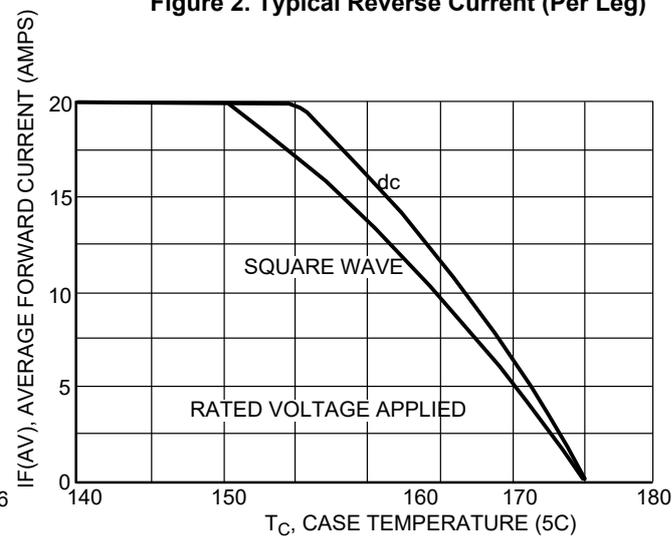


Figure 3. Current Derating, Case (Per Leg)

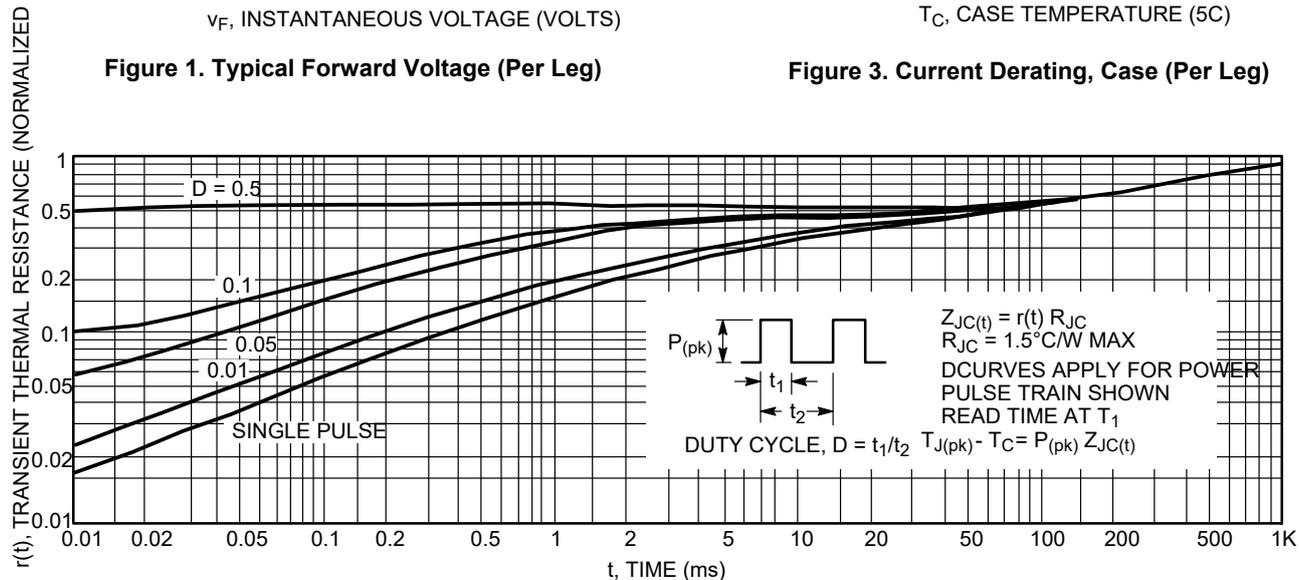


Figure 4. Thermal Response

