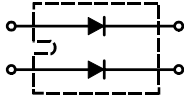
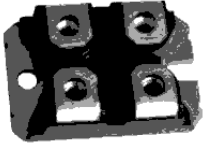
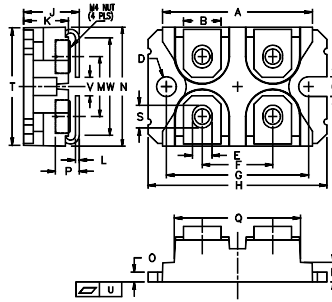


# HUR2x100-40

High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diode



Dimensions SOT-227(ISOTOP)



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	31.50	31.88	1.240	1.255
B	7.80	8.20	0.307	0.323
C	4.09	4.29	0.161	0.169
D	4.09	4.29	0.161	0.169
E	4.09	4.29	0.161	0.169
F	14.91	15.11	0.587	0.595
G	30.12	30.30	1.186	1.193
H	37.80	38.20	1.489	1.505
J	11.68	12.22	0.460	0.481
K	8.92	9.60	0.351	0.378
L	0.76	0.84	0.030	0.033
M	12.60	12.85	0.496	0.506
N	25.15	25.42	0.990	1.001
O	1.98	2.13	0.078	0.084
P	4.95	5.97	0.195	0.235
Q	26.54	26.90	1.045	1.059
R	3.94	4.42	0.155	0.174
S	4.72	4.85	0.186	0.191
T	24.59	25.07	0.968	0.987
U	-0.05	0.1	-0.002	0.004
V	3.30	4.57	0.130	0.180
W	0.780	0.830	0.031	0.033

	$V_{RSM}$	$V_{RRM}$
	V	V
<b>HUR2x100-40</b>	400	400

Symbol	Test Conditions	Maximum Ratings	Unit
$I_{FRMS}$ $I_{FAVM}$	$T_C=60^\circ\text{C}$ ; rectangular, $d=0.5$	100	A
$I_{FSM}$	$T_{VJ}=45^\circ\text{C}$ ; $t_p=10\text{ms}$ (50Hz), sine	1000	A
$E_{AS}$	$T_{VJ}=25^\circ\text{C}$ ; non-repetitive; $I_{AS}=4\text{A}$ ; $L=182\mu\text{H}$	2	mJ
$I_{AR}$	$V_A=1.5 \cdot V_R$ typ.; $f=10\text{kHz}$ ; repetitive	0.4	A
$T_{VJ}$ $T_{VJM}$ $T_{stg}$		-40...+150 150 -40...+150	$^\circ\text{C}$
$P_{tot}$	$T_C=25^\circ\text{C}$	200	W
$V_{ISOL}$	50/60Hz, RMS $I_{ISOL} \leq 1\text{mA}$	2500	V~
$M_d$	mounting torque (M4) terminal connection torque (M4)	1.1-1.5/9-13 1.1-1.5/9-13	Nm/lb.in.
<b>Weight</b>	typical	30	g

# HUR2x100-40

High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diode

Symbol	Test Conditions	Characteristic Values		Unit
		typ.	max.	
<b>I<sub>R</sub></b>	$T_{VJ}=25^{\circ}\text{C}; V_R=V_{RRM}$ $T_{VJ}=150^{\circ}\text{C}; V_R=V_{RRM}$		1 4	mA
<b>V<sub>F</sub></b>	$I_F=100\text{A}; T_{VJ}=150^{\circ}\text{C}$ $T_{VJ}=25^{\circ}\text{C}$		1.24 1.54	V
<b>R<sub>thJC</sub></b> <b>R<sub>thCH</sub></b>	with heatsink compound	0.1	0.6	K/W
<b>t<sub>rr</sub></b>	$I_F=1\text{A}; -di/dt=400\text{A}/\mu\text{s}; V_R=30\text{V}; T_{VJ}=25^{\circ}\text{C}$	30		ns
<b>I<sub>RM</sub></b>	$V_R=100\text{V}; I_F=200\text{A}; -di_F/dt=100\text{A}/\mu\text{s}; T_{VJ}=100^{\circ}\text{C}$	5.5	6.8	A

## FEATURES

- \* International standard package miniBLOC
- \* Isolation voltage 2500 V~
- \* 2 independent FRED in 1 package
- \* Planar passivated chips
- \* Very short recovery time
- \* Extremely low switching losses
- \* Low I<sub>RM</sub>-values
- \* Soft recovery behaviour

## 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<sub>RM</sub> reduces:
  - Power dissipation within the diode
  - Turn-on loss in the commutating switch

**Sirectifier**®