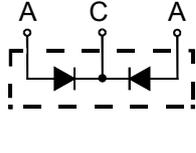
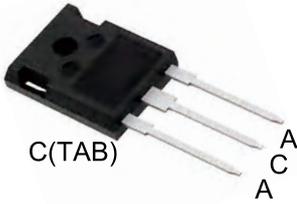


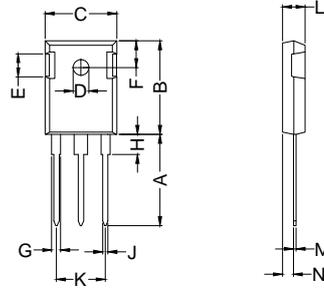
# HUR4040PT

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
<b>HUR4040PT</b>	400	400



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{FAVM}$	$T_C=135^{\circ}C$ ; rectangular, $d=0.5$	Per device	40
		Per diode	20
$I_{FSM}$	$T_{VJ}=45^{\circ}C$ ; $t_p=10ms$ (50Hz), sine	200	A
$E_{AS}$	$T_{VJ}=25^{\circ}C$ ; non-repetitive; $I_{AS}=2.5A$ ; $L=180\mu H$	0.7	mJ
$I_{AR}$	$V_A=1.5 \cdot V_R$ typ.; $f=10kHz$ ; repetitive	0.3	A
$T_{VJ}$		-55...+175	$^{\circ}C$
$T_{VJM}$		175	
$T_{stg}$		-55...+150	
$P_{tot}$	$T_C=25^{\circ}C$	100	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 <sub>R</sub>	T <sub>VJ</sub> =25°C; V <sub>R</sub> =V <sub>RRM</sub>		8	uA
	T <sub>VJ</sub> =150°C; V <sub>R</sub> =V <sub>RRM</sub>		0.5	mA
V <sub>F</sub>	I <sub>F</sub> =20A; T <sub>VJ</sub> = 25°C	1.15	1.40	V
	I <sub>F</sub> =20A; T <sub>VJ</sub> =150°C		1.15	
R <sub>thJC</sub> R <sub>thCH</sub>		0.34	0.95	K/W
t <sub>rr</sub>	I <sub>F</sub> =1A; -di/dt=100A/us; V <sub>R</sub> =30V; T <sub>VJ</sub> =25°C	35		ns
I <sub>RM</sub>	V <sub>R</sub> =100V; I <sub>F</sub> =40A; -di <sub>F</sub> /dt=100A/us; T <sub>VJ</sub> =100°C		5.7	A

## FEATURES

- \* International standard package
- \* Planar passivated chips
- \* Very short recovery time
- \* Extremely low switching losses
- \* Low I<sub>RM</sub>-values
- \* Soft recovery behaviour
- \* RoHS compliant

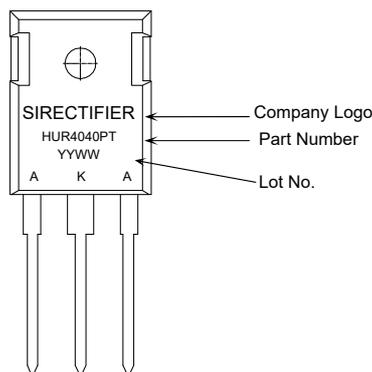
## APPLICATIONS

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

## MARKING



## ORDERING INFORMATION

Part Number	Package	Shipping	Marking Code
HUR4040PT	TO-247AD	30pcs / Tube	HUR4040PT

**Sirectifier®**