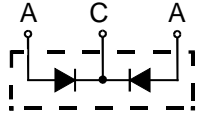
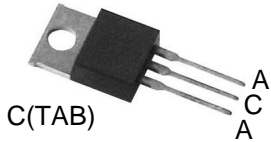


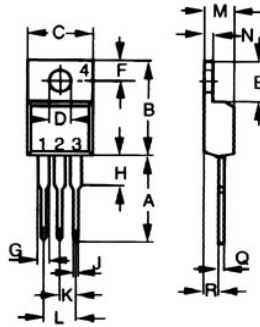
# HUR1620CT

High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diode



A=Anode, C=Cathode, TAB=Cathode

Dimensions TO-220AB



Dim.	Inches		Milimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.550	12.70	13.97
B	0.580	0.630	14.73	16.00
C	0.390	0.420	9.91	10.66
D	0.139	0.161	3.54	4.08
E	0.230	0.270	5.85	6.85
F	0.100	0.125	2.54	3.18
G	0.045	0.065	1.15	1.65
H	0.110	0.230	2.79	5.84
J	0.025	0.040	0.64	1.01
K	0.100	BSC	2.54	BSC
M	0.170	0.190	4.32	4.82
N	0.045	0.055	1.14	1.39
Q	0.014	0.022	0.35	0.56
R	0.090	0.110	2.29	2.79

	$V_{RSM}$	$V_{RRM}$
<b>HUR1620CT</b>	<b>V</b>	<b>V</b>
	200	200

Symbol	Test Conditions	Maximum Ratings	Unit
$I_{FRMS}$ $I_{FAVM}$	$T_C=150^{\circ}C$ ; rectangular, $d=0.5$	35 2 x 8	A
$I_{FSM}$	$T_{VJ}=45^{\circ}C$ ; $t_p=10ms$ (50Hz), sine	80	A
$E_{AS}$	$T_{VJ}=25^{\circ}C$ ; non-repetitive; $I_{AS}=2A$ ; $L=180\mu H$	0.5	mJ
$I_{AR}$	$V_A=1.5 \cdot V_R$ typ.; $f=10kHz$ ; repetitive	0.2	A
$T_{VJ}$ $T_{VJM}$ $T_{stg}$		-55...+175 175 -55...+150	$^{\circ}C$
$P_{tot}$	$T_C=25^{\circ}C$	60	W
$M_d$	mounting torque	0.4...0.6	Nm
<b>Weight</b>	typical	2	g

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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 <sub>VJ</sub> =25°C; V <sub>R</sub> =V <sub>RRM</sub> T <sub>VJ</sub> =150°C; V <sub>R</sub> =V <sub>RRM</sub>		50	uA
			0.2	mA
<b>V<sub>F</sub></b>	I <sub>F</sub> =8A; T <sub>VJ</sub> =150°C T <sub>VJ</sub> =25°C		0.94	V
			1.30	
<b>R<sub>thJC</sub></b> <b>R<sub>thCH</sub></b>		0.5	2.5	K/W
<b>t<sub>rr</sub></b>	I <sub>F</sub> =1A; -di/dt=50A/us; V <sub>R</sub> =30V; T <sub>VJ</sub> =25°C	25		ns
<b>I<sub>RM</sub></b>	V <sub>R</sub> =100V; I <sub>F</sub> =10A; -di <sub>F</sub> /dt=100A/us; T <sub>VJ</sub> =100°C		4.1	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

## 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**®