



Micro Commercial Components



Micro Commercial Components  
20736 Marilla Street Chatsworth  
CA 91311  
Phone: (818) 701-4933  
Fax: (818) 701-4939

# STU40100CT

## Features

- High surge forward current capability
- Low power loss, High efficiency
- Trench Mos schottky technology
- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance Junction to Case : 2.0°C/W

MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
STU40100CT	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	40A	$T_C = 110^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	300A	8.3ms, half sine
Current Squared Time	$I^2t$	373A <sup>2</sup> S	1ms ≤ t < 8.3ms Tj=25°C, Rating of per diode

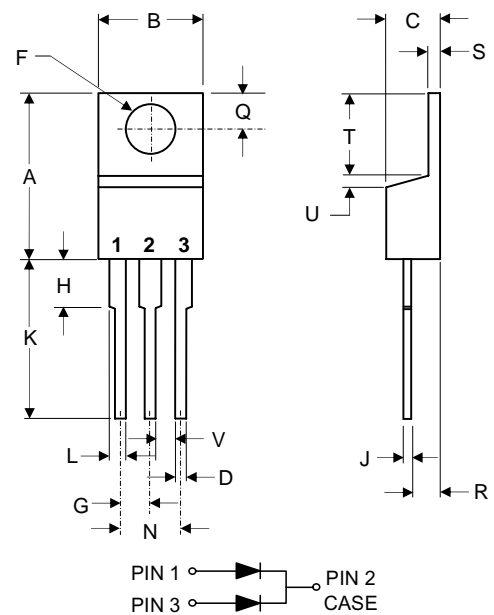
Symbol	Parameter	Min	Typ	Max	Units
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$V_{BR}$	Breakdown Voltage (NOTE 3) $(I_R=1.0\text{mA})$ $(I_R=10\text{mA})$	100 105	---	---	Vdc	
$V_F$	Forward Voltage Per Diode (NOTE 2) $(I_F=5\text{A}, T_A=25^\circ\text{C})$ $(I_F=10\text{A}, T_A=25^\circ\text{C})$ $(I_F=20\text{A}, T_A=25^\circ\text{C})$ $(I_F=5\text{A}, T_A=125^\circ\text{C})$ $(I_F=10\text{A}, T_A=125^\circ\text{C})$ $(I_F=20\text{A}, T_A=125^\circ\text{C})$	---	0.47 0.54 0.67 0.38 0.45 0.61	---	0.71 ---	Vdc
$I_R$	Reverse Current Per Diode (NOTE 3) $(V_R=70\text{V}, T_A=25^\circ\text{C})$ $(V_R=100\text{V}, T_A=25^\circ\text{C})$ $(V_R=70\text{V}, T_A=125^\circ\text{C})$ $(V_R=100\text{V}, T_A=125^\circ\text{C})$	---	9 ---	---	200 ---	μA dc mA dc

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.  
2. Pulse test: 300us pulse width, 1% duty cycle.  
3. Pulse test: Pulse width ≤ 40ms.

## 40 Amp Ultra Low VF Schottky Barrier Rectifier 100 Volts

### TO-220AB



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.429	9.65	10.90	
C	.140	.200	3.56	5.10	
D	.020	.045	0.51	1.14	
F	.131	.170	3.34	4.31	∅
G	.079	.121	2.01	3.07	
H	---	.250	---	6.35	
J	.011	.025	0.28	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.158	.242	4.02	6.14	
Q	.087	.135	2.22	3.43	
R	.080	.126	2.04	3.19	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	---	.050	---	1.27	
V	.045	---	1.15	---	



## Ordering Information

Device	Packing
(Part Number)-BP	Bulk:1Kpcs/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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