

# C10TJ

## Ultra fast Plastic Power Rectifiers

VOLTAGE: 600V

CURRENT:10.0A

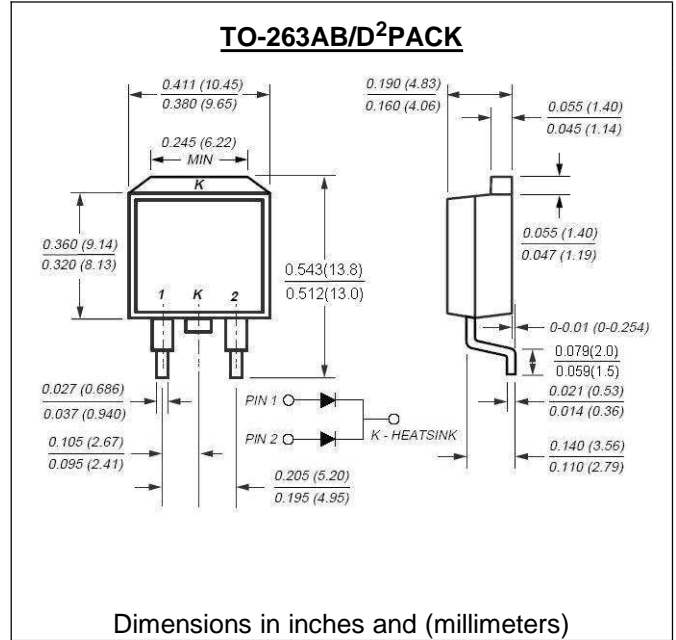


### FEATURE

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultra fast recovery time for high efficiency
- Excellent high temperature switching
- Glass passivated junction
- High voltage and high reliability
- High speed switching
- Low forward voltage

### MECHANICAL DATA

Case: JEDEC TO-263 molded plastic body over passivated chip  
 Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026  
 Polarity: Color band denotes cathode end  
 Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	C10TJ	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	600	V
Maximum RMS Voltage	V <sub>rms</sub>	420	V
Maximum DC blocking Voltage	V <sub>dc</sub>	600	V
Maximum Average Forward Rectified at T <sub>c</sub> =99°C	I <sub>f(av)</sub>	10.0	A
Non-repetitive Peak Forward Surge Current 50Hz half sine- wav	I <sub>fsm</sub>	80	A
Maximum Forward Voltage at Forward Current 5.0A and 25°C	V <sub>f</sub>	1.7	V
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	40	nS
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C	I <sub>r</sub>	30.0 100.0	μA
Typical thermal resistance junction to case	R <sub>th(jc)</sub>	3.0	°C/W
Storage and Operating Temperature Range	T <sub>stg</sub> , T <sub>j</sub>	-40 to +150	°C

Note:

1. Reverse Recovery Condition Ta =25°C, I<sub>fm</sub> =5.0A, -di/dt =50A/us

## RATINGS AND CHARACTERISTIC CURVES C10TJ

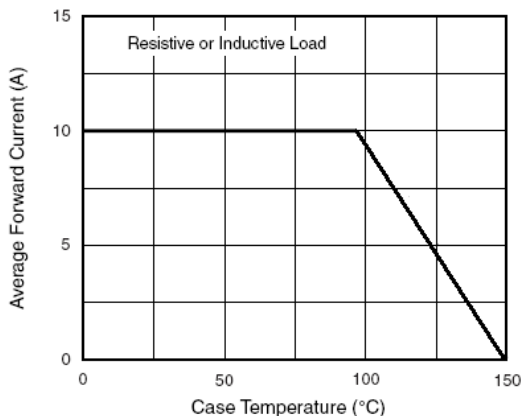


Figure 1. Forward Current Derating Curve

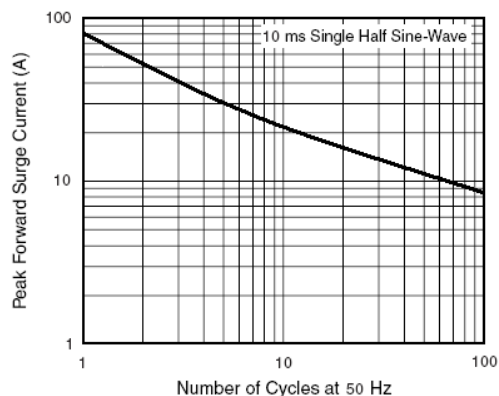


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

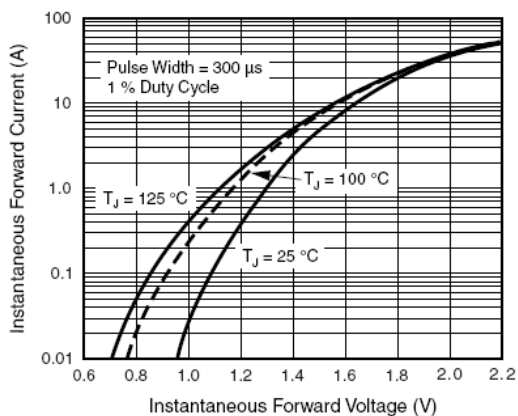


Figure 3. Typical Instantaneous Forward Characteristics Per Diode

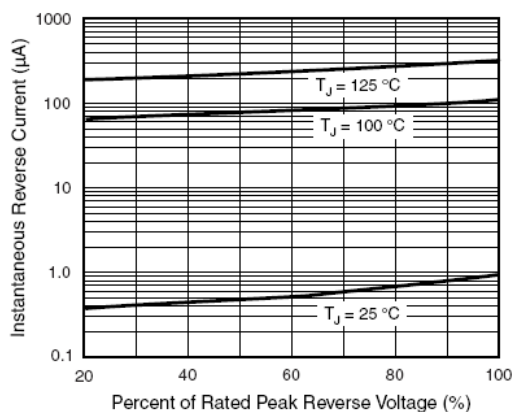


Figure 4. Typical Reverse Characteristics Per Diode

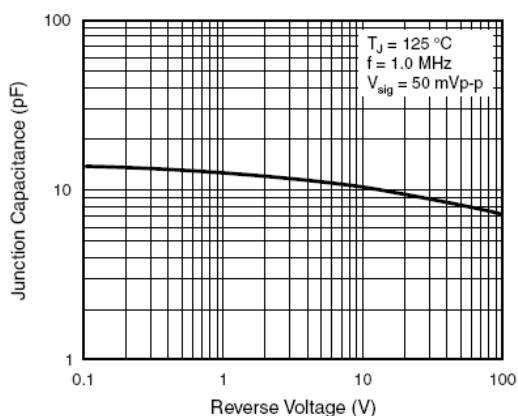


Figure 6. Typical Junction Capacitance Per Diode