

## 100 VOLTS, 10 AMP DUAL SCHOTTKY COMMON CATHODE CENTERTAP RECTIFIER

Qualified per MIL-PRF-19500/681

### DEVICES

**1N6843CCU3**

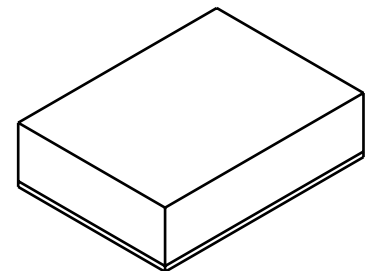
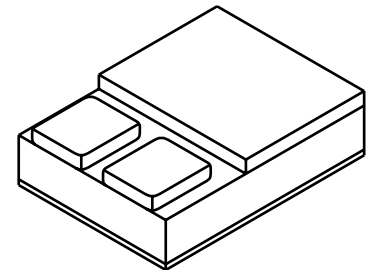
### LEVELS

**JAN  
 JANTX  
 JANTXV**

### FEATURES

- Low Profile Ceramic SMD
- High Surge Rating
- Low Reverse Leakage Current
- Low Forward Voltage
- Low Power Losses

### U3 Package (SMD-0.5)



### ABSOLUTE MAXIMUM RATINGS ( $T_C = +25^\circ\text{C}$ unless otherwise noted) (per leg)

| Parameters / Test Conditions   | Symbol                          | Value           | Unit                      |
|--|---------------------------------|-----------------|---------------------------|
| <b>Peak Repetitive Reverse and DC Blocking Volt</b><br>1N6843  | $V_{RRM}$<br>$V_{RWN}$<br>$V_R$ | 100             | Volts                     |
| <b>Average Rectified Forward Current</b><br>(Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$ ) | $I_O$                           | 10              | Amps                      |
| <b>Peak Surge Current</b><br>8.3ms Pulse, $T_A = 25^\circ\text{C}$ , per leg                             | $I_{FSM}$                       | 100             | Amps                      |
| <b>Operating &amp; Storage Temperature</b>   | $T_{op}$ & $T_{stg}$            | -65 to<br>+ 150 | $^\circ\text{C}$          |
| <b>Maximum Thermal Resistance</b><br>Junction to Case, each individual diode<br>Junction to Case Note 1  | $R_{\theta JC}$                 | 2.8<br>1.7      | $^\circ\text{C}/\text{W}$ |

**Note 1:** Both legs tied together



# TECHNICAL DATA SHEET

6 Lake Street, Lawrence, MA 01841  
 1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803  
 Website: <http://www.microsemi.com>

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### ELECTRICAL CHARACTERISTICS (per leg)

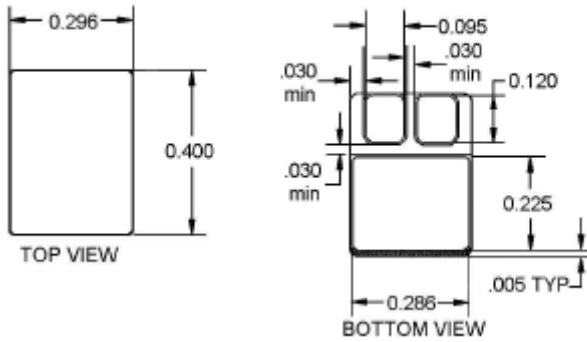
| Parameters / Test Conditions  | Symbol | Min. | Max.                 | Unit    |
|---|--------|------|----------------------|---------|
| <b>Instantaneous Forward Voltage Drop</b><br>$I_F = 5A(pk), T_A = 25^\circ C, 300\mu s$ Pulse<br>$I_F = 15A(pk), T_A = 25^\circ C, 300\mu s$ Pulse<br>$I_F = 30A(pk), T_A = 25^\circ C, 300\mu s$ Pulse       | $V_F$  |      | 0.77<br>1.03<br>1.27 | V       |
| <b>Instantaneous Forward Voltage Drop</b><br>$I_F = 5A(pk), T_C = +125^\circ C, 300\mu s$ Pulse<br>$I_F = 15A(pk), T_C = +125^\circ C, 300\mu s$ Pulse<br>$I_F = 30A(pk), T_C = +125^\circ C, 300\mu s$ Pulse | $V_F$  |      | 0.60<br>0.77<br>0.95 | V       |
| <b>Instantaneous Forward Voltage Drop</b><br>$I_F = 5A(pk), T_C = -55^\circ C, 300\mu s$ Pulse<br>$I_F = 15A(pk), T_C = -55^\circ C, 300\mu s$ Pulse<br>$I_F = 30A(pk), T_C = -55^\circ C, 300\mu s$ Pulse    | $V_F$  |      | 0.86<br>1.18<br>1.43 | V       |
| <b>Reverse Leakage Current</b><br>Rated $V_R, T_A = 25^\circ C, 300\mu s$ pulse minimum   | $I_R$  |      | 10                   | $\mu A$ |
| <b>Reverse Leakage Current</b><br>Rated $V_R, T_C = 125^\circ C, 300\mu s$ pulse minimum  | $I_R$  |      | 5                    | mA      |
| <b>Junction Capacitance</b><br>$V_R = 10Vdc, T_A = 25^\circ C, f = 1MHz$  | $C_J$  |      | 275                  | Pf      |

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## 100 VOLTS, 10 AMP DUAL SCHOTTKY COMMON CATHODE CENTERTAP RECTIFIER

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### CASE OUTLINE: SMD-0.5



### TYPICAL OPERATING CURVES (TA=25°C Unless otherwise specified)

