

## 45 VOLTS, 30 AMP SCHOTTKY RECTIFIER CERAMIC SURFACE MOUNT

Qualified per MIL-PRF-19500/682

### DEVICES

**1N6845U3**

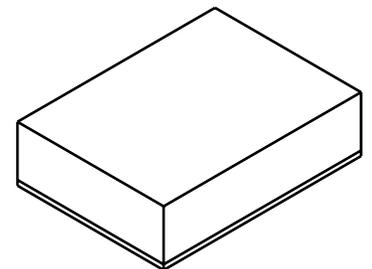
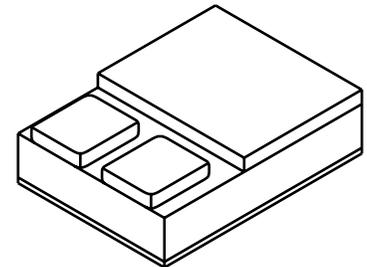
### LEVELS

**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)

Parameters / Test Conditions	Symbol	Value	Unit
<b>Peak Repetitive Reverse and DC Blocking Volt</b> 1N6845U3	$V_{RRM}$ $V_{RWN}$ $V_R$	45	Volts
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_O$	30	Amps
<b>Peak Surge Current</b> 8.3ms Pulse, $T_A = 25^\circ\text{C}$	$I_{FSM}$	400	Amps
<b>Operating &amp; Storage Temperature</b>	$T_{op}$ & $T_{stg}$	-65 to + 150	$^\circ\text{C}$
<b>Maximum Thermal Resistance</b> Junction to Case	$R_{\theta JC}$	2.0	$^\circ\text{C}/\text{W}$

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

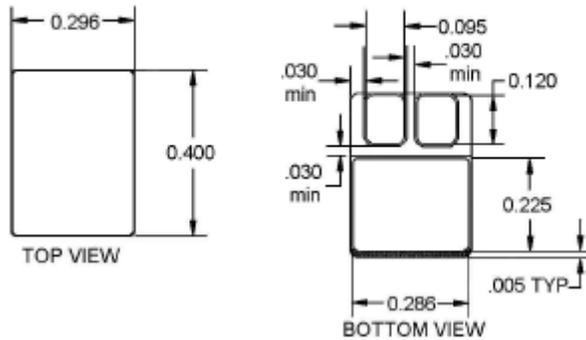
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### ELECTRICAL CHARACTERISTICS

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
<b>Instantaneous Forward Voltage Drop</b> $I_F = 10\text{A}_{dc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse $I_F = 20\text{A}_{dc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse $I_F = 40\text{A}_{dc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse	$V_F$		0.65 0.72 0.86	Vdc
<b>Instantaneous Forward Voltage Drop</b> $I_F = 20\text{A}_{dc}$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse $I_F = 20\text{A}_{dc}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse	$V_F$		0.67 0.78	Vdc
<b>Reverse Leakage Current</b> Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum	$I_R$		100	$\mu\text{A}$
<b>Reverse Leakage Current</b> Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum	$I_R$		10	mA
<b>Junction Capacitance</b> $V_R = 10\text{V}_{dc}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$	$C_J$		800	Pf

### CASE OUTLINE: SMD-0.5



### TYPICAL OPERATING CURVES ( $T_A = 25^\circ\text{C}$ Unless otherwise specified)

