

45 VOLTS, 30 AMP SCHOTTKY RECTIFIER CERAMIC SURFACE MOUNT

Qualified per MIL-PRF-19500/682

DEVICES

1N6845U3

LEVELS

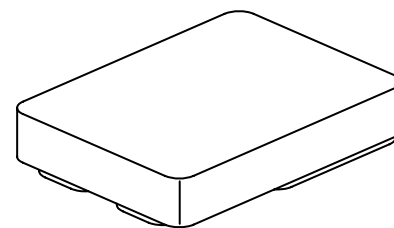
**JAN
 JANTX
 JANTXV**

FEATURES

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

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

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



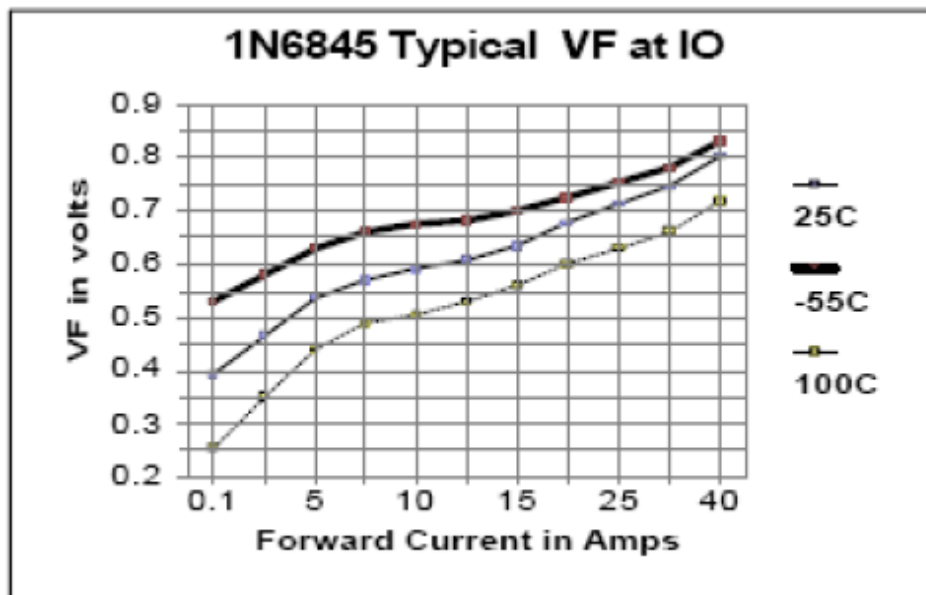
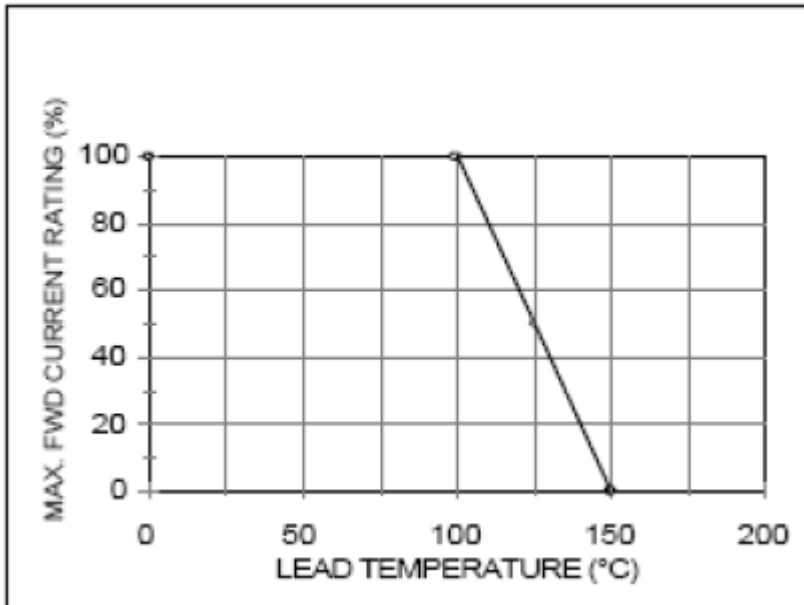
U3 Package (SMD-0.5)

ELECTRICAL CHARACTERISTICS

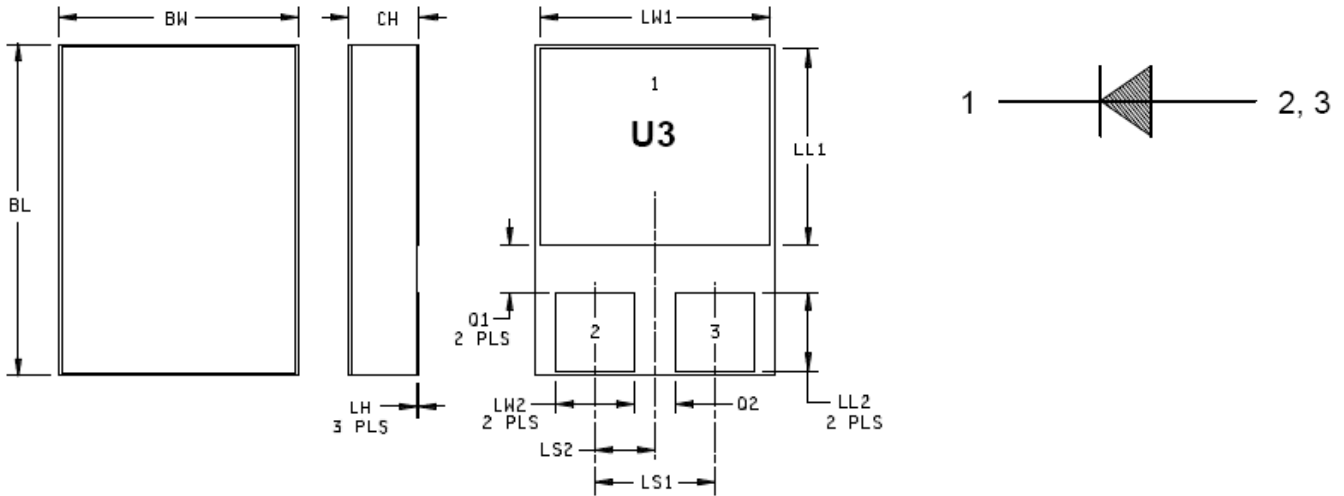
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Instantaneous Forward Voltage Drop $I_F = 10\text{A}_{dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse $I_F = 20\text{A}_{dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse $I_F = 40\text{A}_{dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse	V_F		0.65 0.72 0.86	Vdc
Instantaneous Forward Voltage Drop $I_F = 20\text{A}_{dc}$, $T_A = 100^\circ\text{C}$, 300 μs Pulse $I_F = 10\text{A}_{dc}$, $T_A = -55^\circ\text{C}$, 300 μs Pulse	V_F		0.67 0.78	Vdc
Reverse Leakage Current Rated $V_R = 45\text{V}$, $T_A = 25^\circ\text{C}$, 300 μs pulse minimum	I_R		100	μA
Reverse Leakage Current Rated $V_R = 45\text{V}$, $T_A = 100^\circ\text{C}$, 300 μs pulse minimum	I_R		10	mA
Junction Capacitance $V_R = 5\text{V}_{dc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$	C_J		800	Pf

GRAPH

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



PACKAGE DIMENSIONS



NOTES:

1. Dimensions are in inches
2. Millimeters are given for general information only.
3. In accordance with ASME Y14.5M, diameters are equivalent to ϕx symbology.

Ltr	Dimensions				Note
	Inches		Millimeters		
	Min	Max	Min	Max	
BL	.395	.405	10.03	10.29	
BW	.291	.301	7.39	7.65	
CH	.108	.122	2.74	3.12	
LH	.010	.020	0.25	0.51	
LL1	.220	.230	5.59	5.84	
LL2	.115	.125	2.92	3.18	
LS1	.150 BSC		3.81 BSC		
LS2	.075 BSC		1.91 BSC		
LW1	.281	.291	7.14	7.39	
LW2	.090	.100	2.29	2.54	
Q1	.030		0.76		
Q2	.030		0.76		

FIGURE 1 - Physical dimensions