

HIGH-RELIABILITY PRODUCTS

Features

- $V_{RWM} = 40V$
- $I_R = 0.10mA$
- $V_F = 0.50V$ at $I_F = 3.0A$
- Hard glass Hermetically sealed
- Metallurgically bonded
- Double plug construction
- Surface mount package

Description

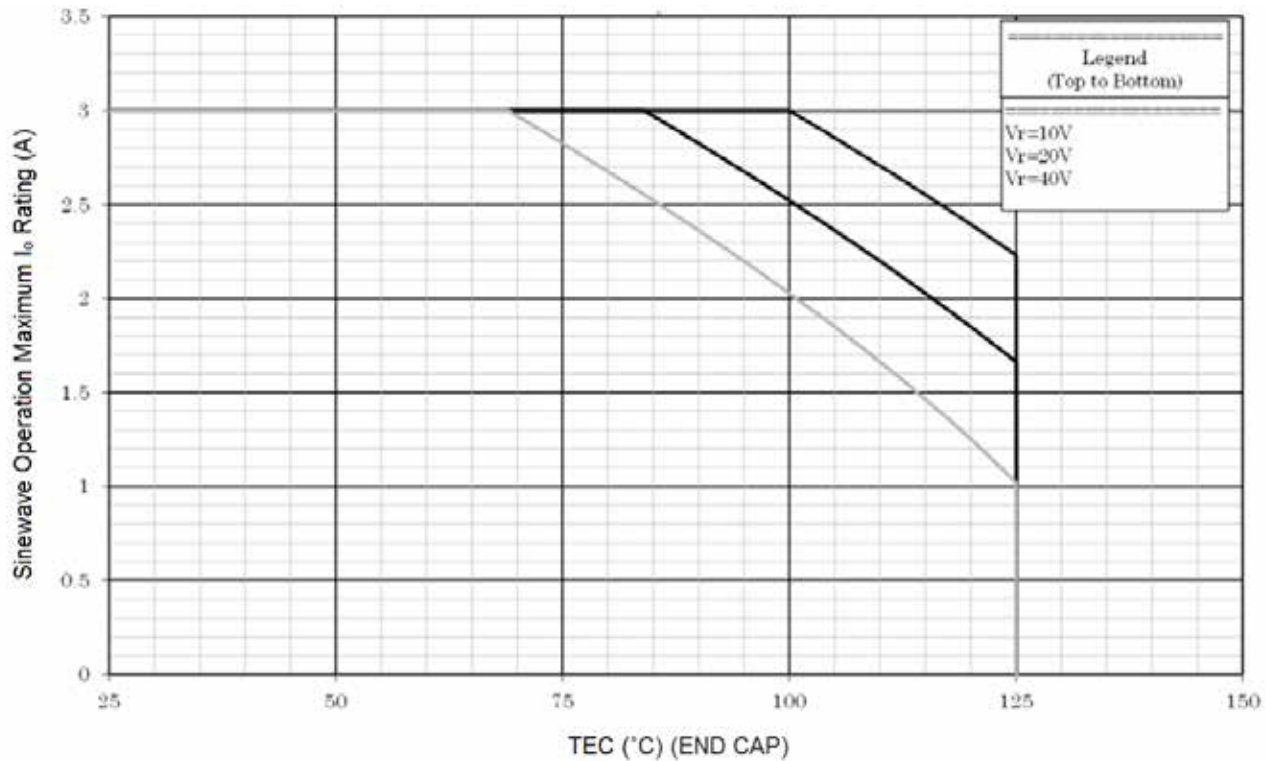
1N5822US is a Schottky rectifier rated 40V, 3A in a square MELF package for surface mount applications.

This product is qualified to MIL-PRF-19500/620 and can be supplied as JAN, JANTX and JANTXV versions.

Absolute Maximum Rating $T_A = 25^\circ C$ unless otherwise specified.

	Symbol	1N5822US	Units
Working reverse voltage	V_{RWM}	40	V
Maximum Forward Voltage	V_{FM1} @ 1.0A	0.40	V
	V_{FM2} @ 3.0A	0.50	V
	V_{FM3} @ 9.4A	0.70	V
Maximum reverse leakage current	I_{RM} @ 40V	0.10	mA
Junction Temperature	T_J	-65 to +125	$^\circ C$
Storage Temperature	T_{STG}	-65 to +150	$^\circ C$
Thermal Resistance Junction to End Cap	$R_{\theta JEC}$	10	$^\circ C/W$
Surge Peak Forward current @ $T_A = 25^\circ C$ (Test Pulse = 8.3 ms)	I_{FSM}	80	A(pk)
Thermal Impedance	$Z_{\theta JX}$	2.5	$^\circ C/W$
Average rectified output current @ $T_{EC} = 25^\circ C$	I_o	3	A

Temperature - Current Derating Curve

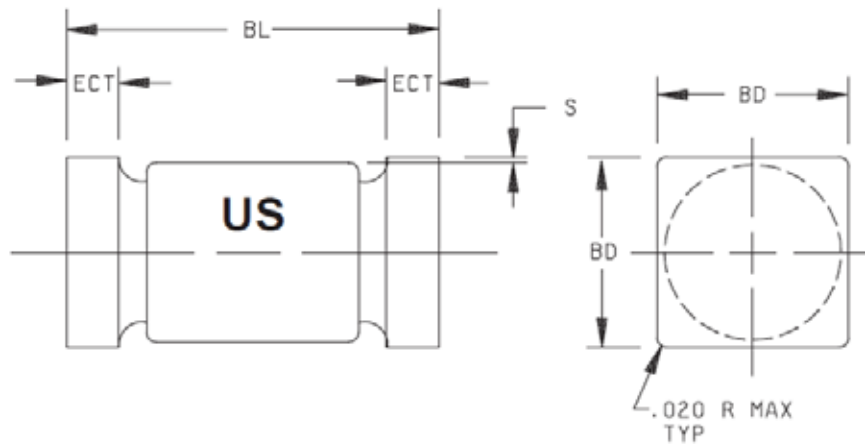


Sinewave operating 50% Duty cycle

Notes:

1. This is the true inverse of the worst case thermal resistance value. All devices are capable of operating $\leq T_J$ specified on this curve. Any parallel line to this curve will intersect the appropriate power for the desired maximum T_J allowed.
2. This temperature-current derating curve varies with applied voltage.

Outline Drawing



Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	.137	.148	3.48	3.76
BL	.200	.225	5.08	5.72
ECT	.019	.028	0.48	0.71
S	.003		0.08	

Notes:

1. Dimensions are in inches. Millimeters are given for information only
2. Dimensions are pre-solder dip
3. U-suffix are structurally identical to the US-suffix parts
4. In accordance with ASME Y14.5M, diameters are equivalent to ϕ_x symbology
5. Terminal Finish 63/37 solder