SENSITRON SEMICONDUCTOR

TECHNICAL DATA
DATA SHEET 193, REV. D

AVAILABLE AS
1N5819UR-1
JAN EQUIVALENT:
SJ5819UR-1
SV5819UR-1
SX5819UR-1
SS5819UR-1

HERMETIC SCHOTTKY BARRIER DIODE

DESCRIPTION: A 45 VOLT, 1.0 AMP SCHOTTKY BARRIER DIODE.

MAXIMUM RATINGS   All ratings are at T_A = 25°C unless otherwise specified.

RATING	CONDITIONS	MIN	TYP	MAX	UNIT
Peak Inverse Voltage (PIV)		-	-	45	Vdc
Average DC Output Current (I_o)	See Notes	-	-	1.0	Amps
Peak Single Cycle Surge Current (I_{fsm})	t_p = 8.3 ms Single Half Cycle Sine Wave, Superimposed On Rated Load	-	-	25	Amps(pk)
Thermal Resistance (θ_{JEC})	Junction to Endcap	-	-	40	°C/W
Junction Temperature (T_J)	-	-55	-	+125	°C
Operating Temperature (T_{op})	-	-55	-	+125	°C
Storage Temp. (T_{stg})	-	-55	-	+150	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	CONDITIONS	MIN	TYP	MAX	UNIT
Maximum Forward Voltage (V_f)	I_F = 1.0A (300 μsec pulse, duty cycle < 2%)	-	-	0.49	Volts
Maximum Instantaneous Reverse Current At Rated (PIV)	T_A = 25° C T_A = 100° C	-	-	50 5.0	μAmps mAmps
Junction Capacitance (C_J)	V_R = 5 Vdc $0.01 \leq f \leq 1$MHz V_{sig} = 15 mV p-p	-	-	70	pF

Notes: - All ratings are at TA = 25°C unless otherwise specified.
   - Maximum storage temperature range: -55°C to +150°C.
   - Maximum operating temperature range: -55°C to +125°C

SENSITRON
TECHNICAL DATA
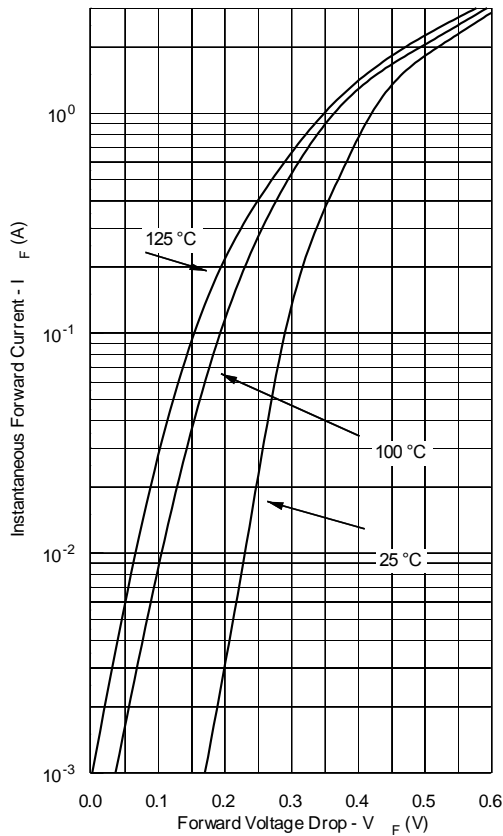
DATA SHEET 193, REV. D
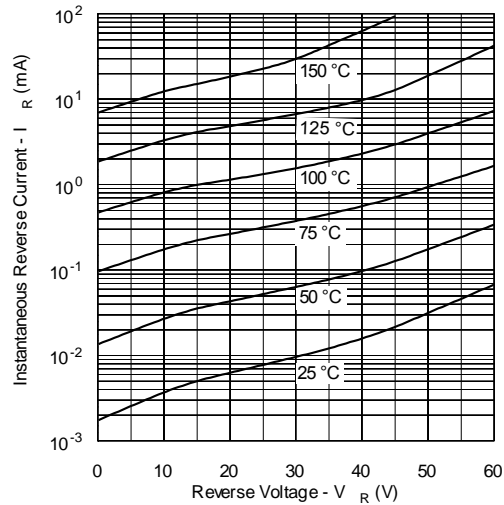
PACKAGE DIMENSIONS:

MELF
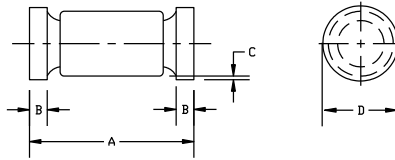
SCHOTTKY BARRIER

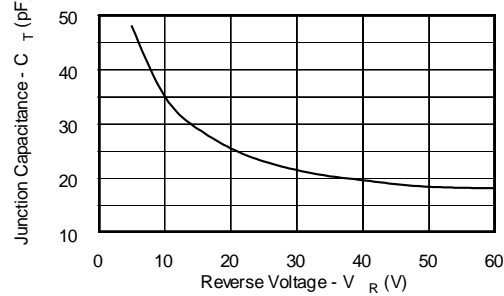| PACKAGE STYLE	DIMENSIONS - INCHES (MILLIMETERS)			
	A	B	C	D
	.189/.205	.016/.022	0.001 Min	.094/.105
DO-213AB	.480/.521	0.41/0.56	0.03 Min	2.39/2.67

GRAPHS:

Typical Forward Characteristics

Typical Reverse Characteristics

Typical Junction Capacitance

SENSITRON
TECHNICAL DATA

DATA SHEET 193, REV. D

PART ORDERING INFORMATION

The following part numbers can be purchased in either axial or surface mount devices and screened and tested to the military screening flow. The parts are marked in accordance with the testing performed, example:

Sensitron Screening Level	Part Number- Surface Mount Package
1N	1N5819UR-1
SJ	SJ5819UR-1
SX	SX5819UR-1
SV	SV5819UR-1
SS	SS5819UR-1

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