

# 1N5817HS THRU 1N5819HS

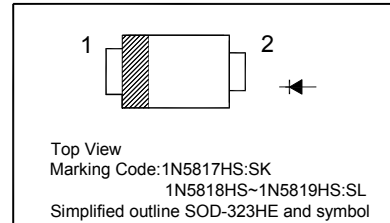
## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 40 V

Forward Current - 1 A

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%

Parameter	Symbols	1N5817HS	1N5818HS	1N5819HS	Units	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1			A	
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load(JEDEC methode)	$I_{FSM}$	25			A	
Maximum Instantaneous Forward Voltage	$V_F$	at $I_F = 1$ A	0.45	0.55	0.6	V
		at $I_F = 3$ A	0.75	0.875	0.9	
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage <sup>1)</sup>	$I_R$	$T_A = 25^\circ\text{C}$	0.5			mA
		$T_A = 100^\circ\text{C}$	10			
Typical Junction Capacitance <sup>2)</sup>	$C_J$	110			pF	
Typical Thermal Resistance, Junction to Ambient <sup>3)</sup>	$R_{\theta JA}$	75			°C/W	
Operating Junction Temperature Range	$T_j$	- 55 to + 125			°C	
Storage Temperature Range	$T_{stg}$	- 55 to + 150			°C	

<sup>1)</sup> Pulse test: 300  $\mu$ s pulse width, 1% duty cycle

<sup>2)</sup> Mearsured at 1 MHz and reverse voltage of 4 V

<sup>3)</sup> Thermal resistance junction to ambient 0.24" X 0.24"(6 X 6 mm) copper pads to each terminals

**TOP DYNAMIC**



# 1N5817HS THRU 1N5819HS

FIG.1-FORWARD CURRENT DERATING CURVE

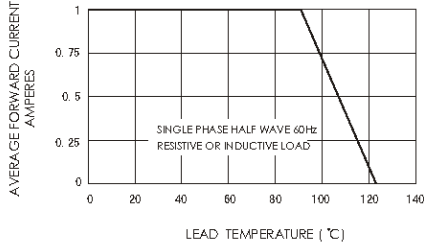


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

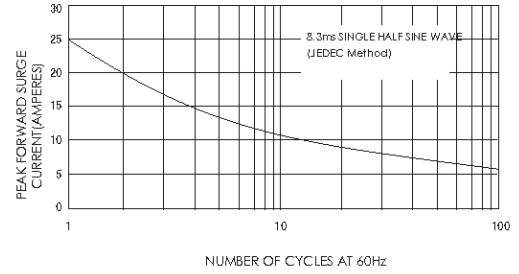


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

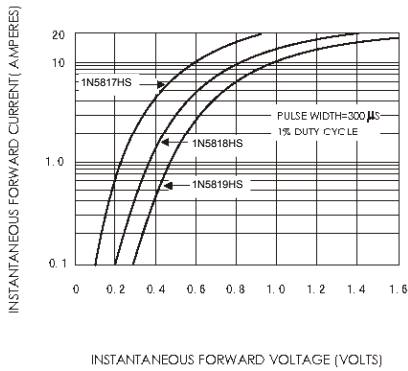


FIG.4-TYPICAL REVERSE CHARACTERISTICS

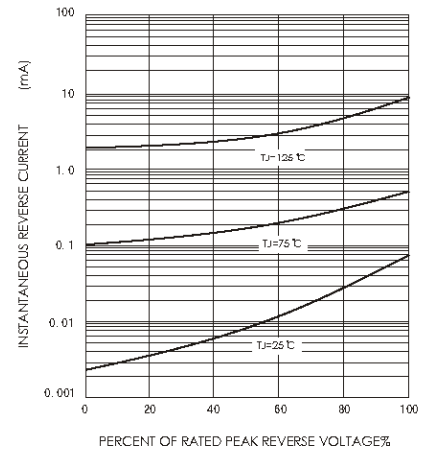
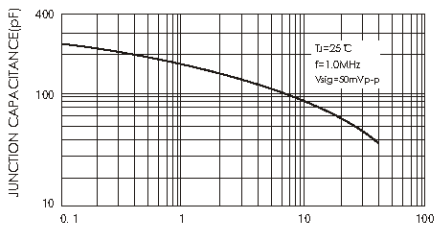


FIG.5-TYPICAL JUNCTION CAPACITANCE



**TOP DYNAMIC**

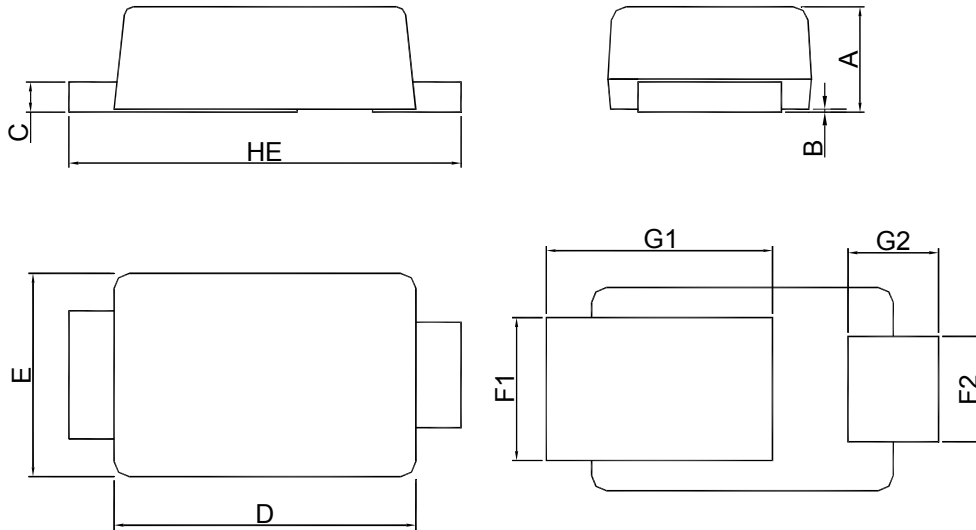


# 1N5817HS THRU 1N5819HS

## PACKAGE OUTLINE

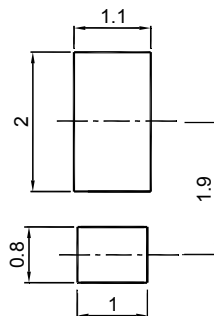
Plastic surface mounted package; 2 leads

SOD-323HE



UNIT	A	B	C	D	E	F1	F2	G1	G2	H <sub>E</sub>
mm	0.7	0.02	0.2	2	1.35	0.95	0.7	1.5	0.6	2.6
	0.5	0	0.1	1.8	1.15	0.75	0.5	1.3	0.4	2.4

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323HE	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

**TOP DYNAMIC**



Dated: 25/04/2014 Rev: 01