

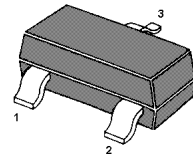
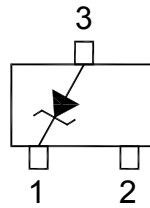
# ESDU12-HAF

## Transient Voltage Suppressors

for ESD Protection

### Features

- Low clamping voltage
- Low leakage
- Halogen and Antimony Free(HAF), RoHS compliant



1. Cathode 2. Cathode 3. Anode  
Marking Code: H2  
SOT-23 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{pk}$	300	W
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	12	A
Operating Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25^\circ\text{C}$

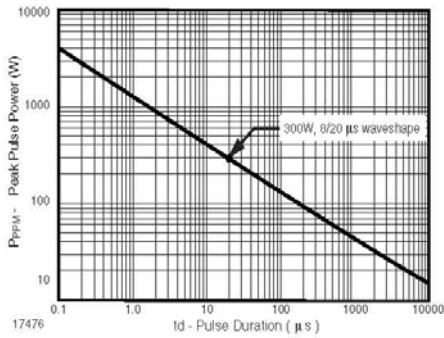
Parameter	Symbol	Min.	Max.	Unit
Reverse Stand-Off Voltage	$V_{RWM}$	-	12	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	13.3	-	V
Reverse Current at $V_{RWM} = 12 \text{ V}$	$I_R$	-	1	$\mu\text{A}$
Clamping Voltage at $I_{PP} = 1 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 5 \text{ A}$ , $t_p = 8/20 \mu\text{s}$	$V_C$	-	19 28	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_j$	-	150	pF

**TOP DYNAMIC**

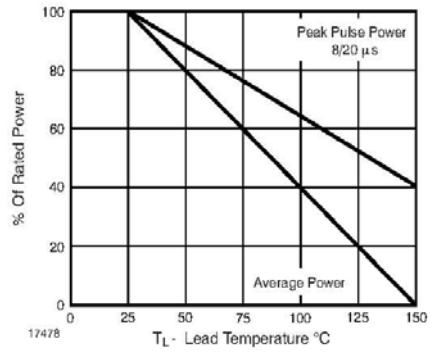


ISO14001 : 2004 Certificate No. 121505007  
ISO 9001 : 2008 Certificate No. 50114012  
OHSAS 18001 : 2007 Certificate No. 05131508006  
IECQ QC 080000 Certificate No. E22#M007#4M02

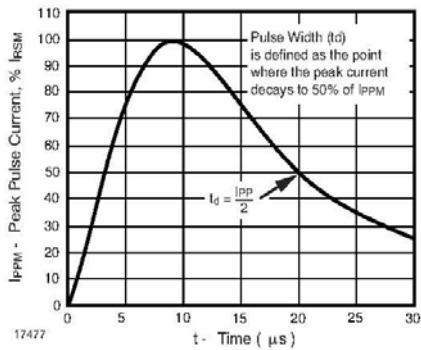
Dated: 01/03/2016 Rev: 01



Non -Repetitive Peak Pulse Power vs. Pulse Time



Power Derating



Pulse Waveform