

# E24MUKB2C-HAF

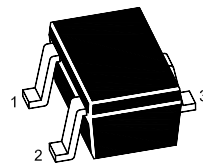
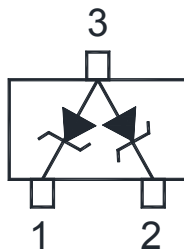
## ESD Protection Diode

### Features

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

### Applications

- Computers
- Communication systems
- Cellular phones handsets and accessories
- Other telephone sets



SOT-323 Plastic Package

1. Cathode 2. Cathode 3. Anode

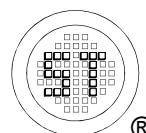
### Absolute Maximum Ratings (at $T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{PK}$	240	W
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	3.8	A
ESD (IEC 61000-4-2) Air Contact	$V_{ESD}$	$\pm 28$ $\pm 24$	KV
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics (at $T_a = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Working Voltage	$V_{RWM}$	-	-	24	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$ , Pin 1 or Pin 2 to Pin 3	$V_{(BR)R}$	25	-	30	V
Reverse Current at $V_R = 24 \text{ V}$ , Pin 1 or Pin 2 to Pin 3	$I_R$	-	-	1	$\mu\text{A}$
Forward Voltage at $I_F = 10 \text{ mA}$	$V_F$	-	-	1.2	V
Clamping Voltage at $I_{PP} = 3.8 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , Pin 1 or Pin 2 to Pin 3	$V_C$	-	-	63	V
Clamping Voltage at $I_{TLP} = 4 \text{ A}$ , $t_p = 0.2/100 \text{ ns}$ , Pin 1 or Pin 2 to Pin 3 at $I_{TLP} = 16 \text{ A}$ , $t_p = 0.2/100 \text{ ns}$ , Pin 1 or Pin 2 to Pin 3	$V_{CL}$	- -	34.2 37.4	- -	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$ , Pin 1 or Pin 2 to Pin 3	$C_j$	-	25	65	pF
Dynamic Resistance <sup>1)</sup>	$R_{dyn}$	-	0.27	-	$\Omega$

<sup>1)</sup> Dynamic Resistance calculated from  $I_{TLP} = 4 \text{ A}$  to  $I_{TLP} = 16 \text{ A}$ .



Electrical Characteristics Curves

Fig 1. Pulse Waveform

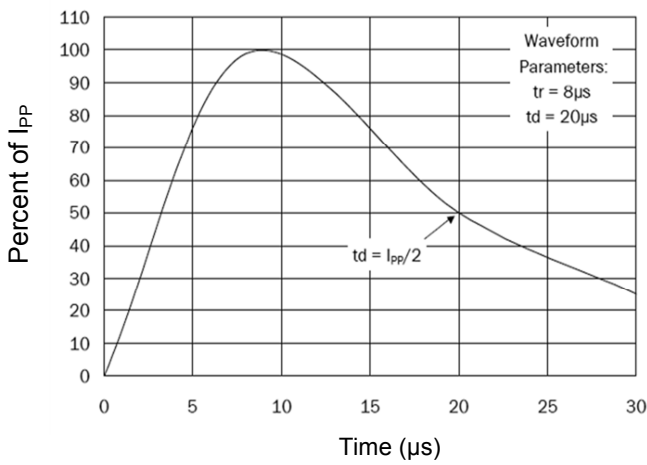


Fig 2. Power Derating Curve

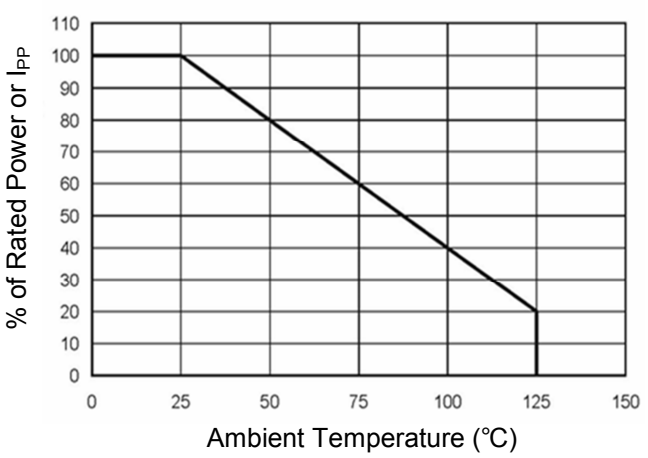


Fig 3. Clamping Voltage Curve

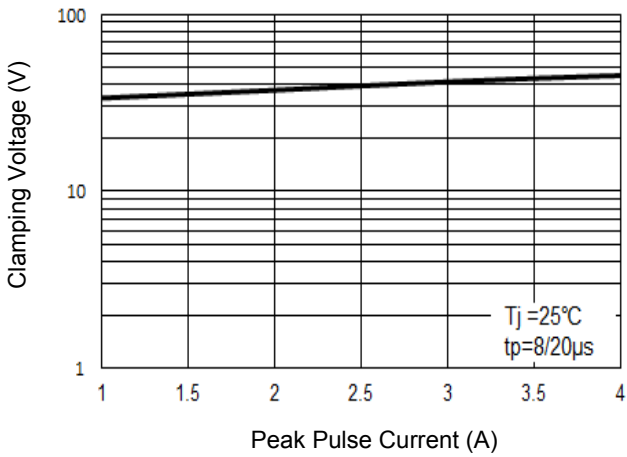


Fig 4. Junction Capacitance

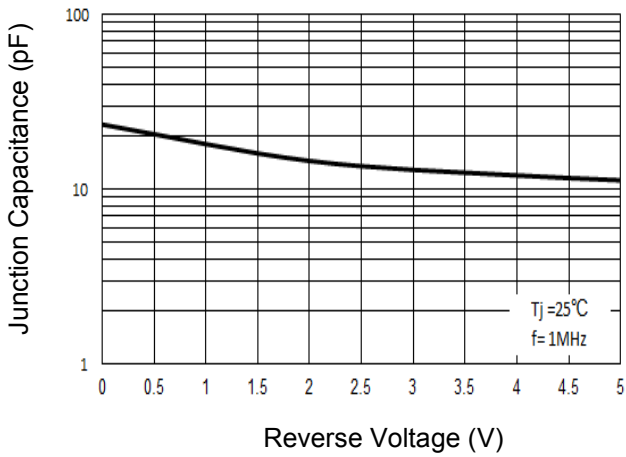
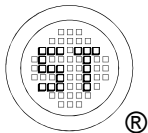
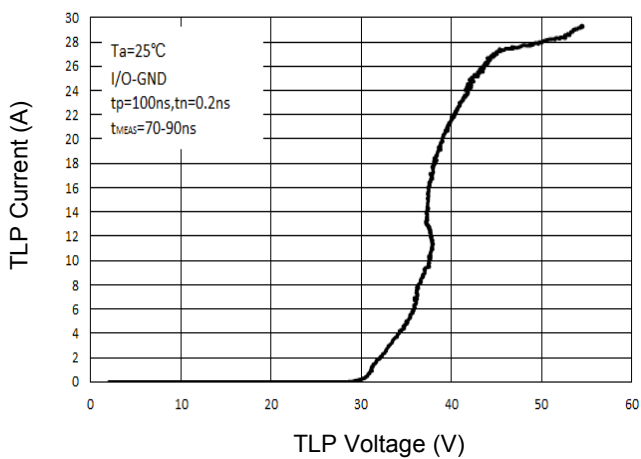


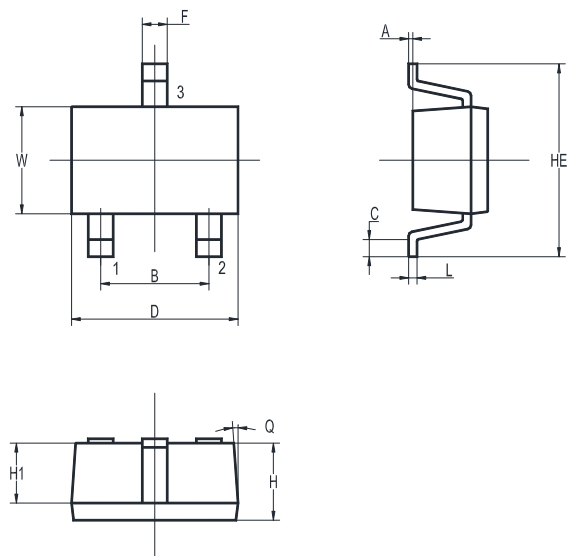
Fig. 5 TLP Curve



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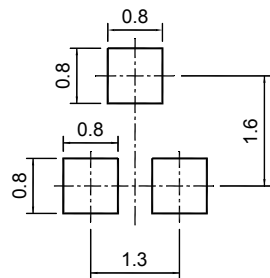
## Package Outline Dimensions (Units: mm)

SOT-323



UNIT	A	B	C	D	H	H1	HE	F	L	W	Q
mm	0.1 MAX.	1.4 1.2	0.2 MIN.	2.1 1.9	1.0 0.8	0.7 TYP.	2.4 2.0	0.35 0.25	0.15 0.05	1.35 1.15	5° MAX.

## Recommended Soldering Footprint

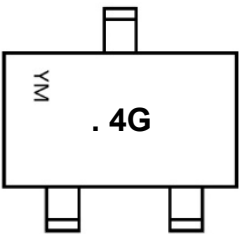


## Packing information

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

## Marking information

" 4G " = Part No.  
" • " = HAF (Halogen and Antimony Free)  
" YM " = Date Code Marking  
" Y " = Year  
" M " = Month  
Font type: Arial



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