

## 3.0A Low VF Surface Mount Schottky Barrier Rectifiers - 20V-40V

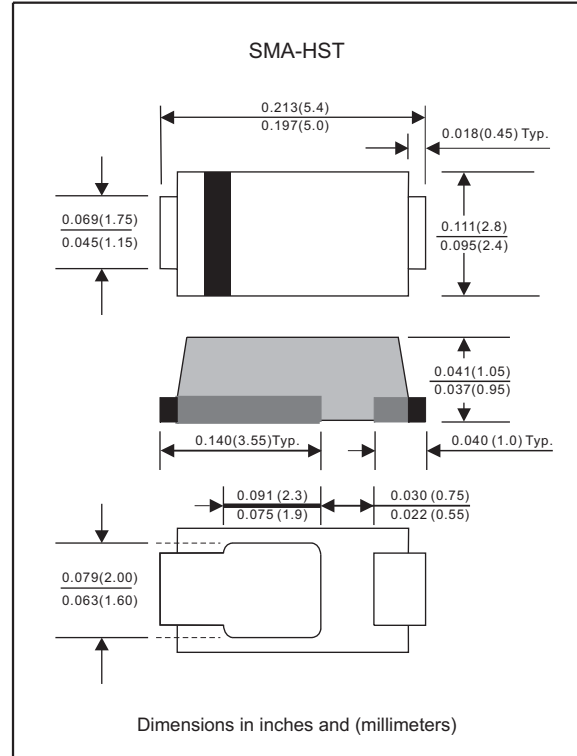
### Features

- Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guardring for overvoltage protection.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.

### Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic,SMA-HST
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.037 gram

### Package outline



### Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	$I_o$			3.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	$I_{FSM}$			80	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^{\circ}\text{C}$	$I_R$			1.0	mA
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		300		pF
Storage temperature		$T_{STG}$	-65		+175	$^{\circ}\text{C}$

SYMBOLS	$V_{RRM}$ <sup>*1</sup> (V)	$V_{RMS}$ <sup>*2</sup> (V)	$V_R$ <sup>*3</sup> (V)	$V_F$ <sup>*4</sup> (V)	Operating temperature $T_J$ , ( $^{\circ}\text{C}$ )
SKM32-AS	20	14	20	0.38	-55 to +100
SKM33-AS	30	21	30	0.40	
SKM34-AS	40	28	40	0.40	

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@ $I_F=3.0\text{A}$

## Rating and characteristic curves (SKM32-AS THRU SKM34-AS)

FIG.1-TYPICAL FORWARD

CHARACTERISTICS

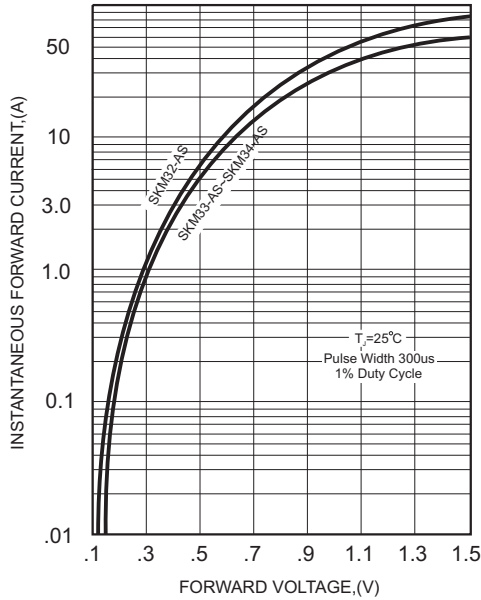


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

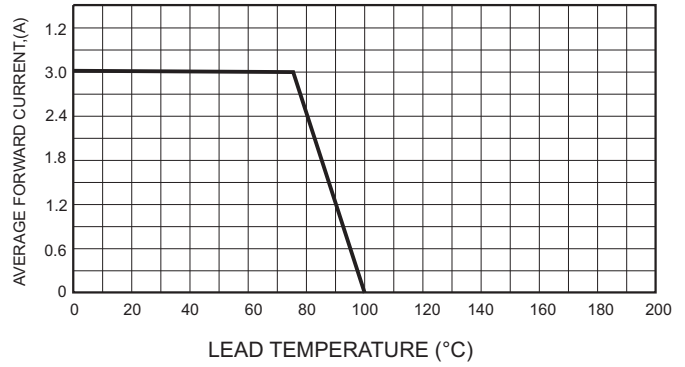


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

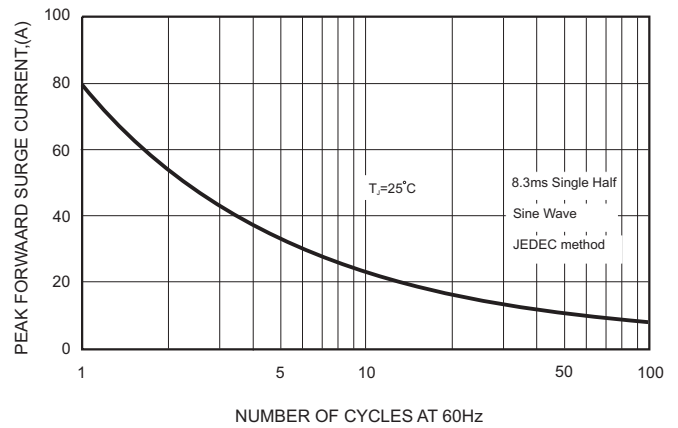


FIG.3 - TYPICAL REVERSE

CHARACTERISTICS

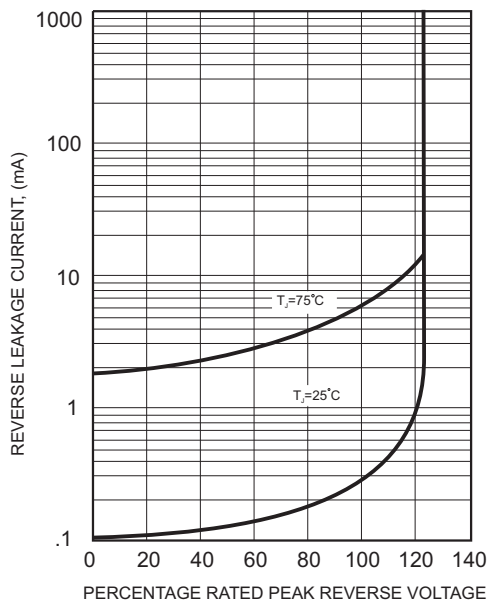
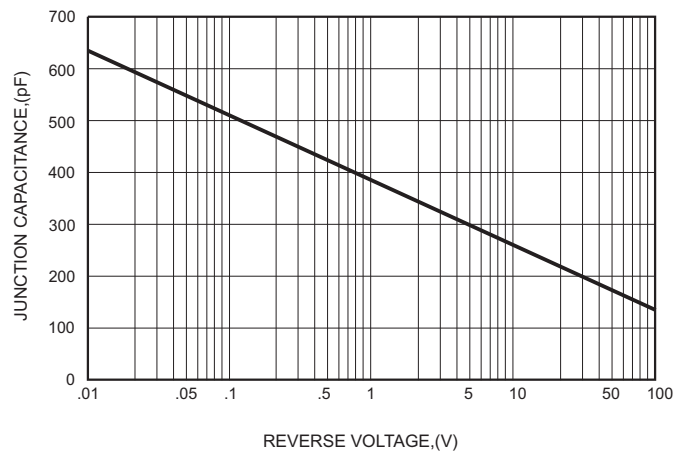




FIG.5-TYPICAL JUNCTION CAPACITANCE



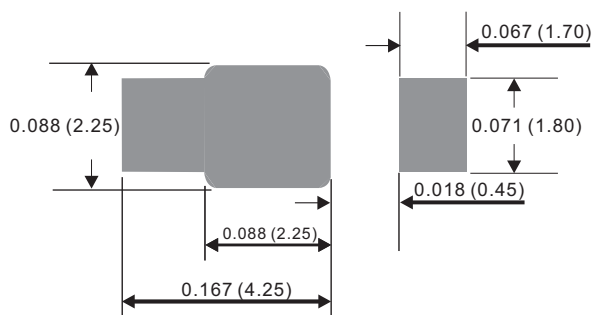
## Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

## Marking

Type number	Marking code
SKM32-AS	SL32
SKM33-AS	SL33
SKM34-AS	SL34

## Suggested solder pad layout



Dimensions in inches and (millimeters)