

2.0A Surface Mount Schottky Barrier Rectifiers - 40V-60V

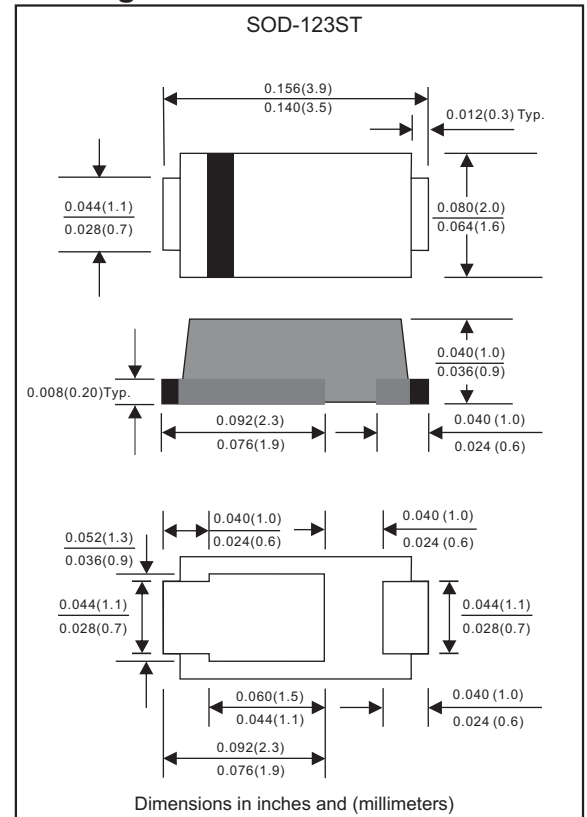
Features

- Low profile surface mounted application in order to optimize board space
- Tiny plastic SMD package
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Silicon epitaxial planar chip, metal silicon junction

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123ST / MINI SMA
- Terminals :Plated terminals, solderable per MIL-STD-750,
- Polarity : Indicated by cathode band
- Mounting Position : Any
- Weight : Approximated 0.0155 gram

Package outline



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

Parameter	symbol	SKM240-MST	SKM260-MST	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	V
Maximum RMS voltage	V_{RMS}	28	42	V
Maximum continuous reverse voltage	V_R	40	60	V
Forward rectified current (see Fig.1)	I_o	2.0		A
Peak forward surge current 8.3ms single half sine-wave	I_{FSM}	50		A
Operating junction temperature range	T_J	-55 to +125	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +175		$^\circ\text{C}$

Electrical characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	symbol	SKM240-MST	SKM260-MST	Unit
Maximum instantaneous forward voltage at $I_F=2.0\text{A}$	V_F	0.50	0.70	V
Maximum reverse leakage current at rated V_R	I_R	0.5 20		mA mA
		$T_J=25^\circ\text{C}$		
		$T_J=100^\circ\text{C}$		

Thermal characteristics

Parameter	symbol	SKM240-MST	SKM260-MST	Unit
Typical thermal resistance junction to ambient	$R_{\theta JA}$	70		$^\circ\text{C/W}$
Typical thermal resistance junction to case	$R_{\theta JC}$	30		$^\circ\text{C/W}$

Rating and characteristic curves (SKM240-MST THRU SKM260-MST)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

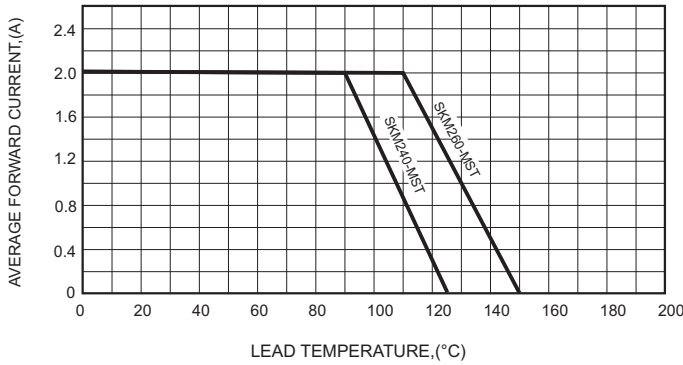


FIG.2-TYPICAL FORWARD CHARACTERISTICS

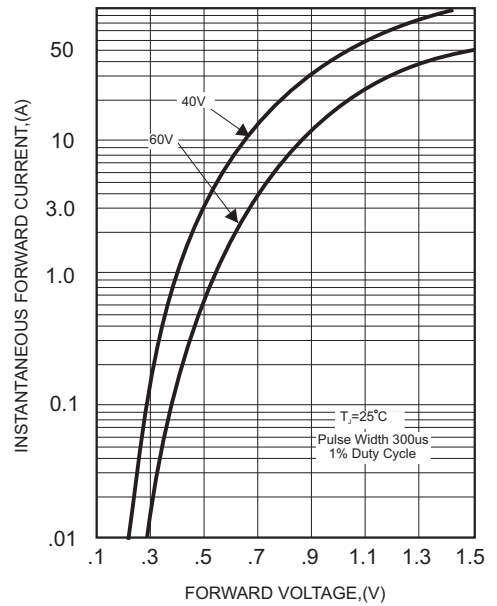


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

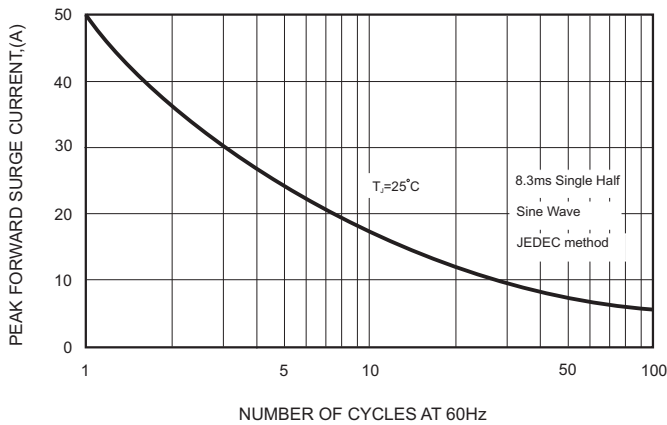


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

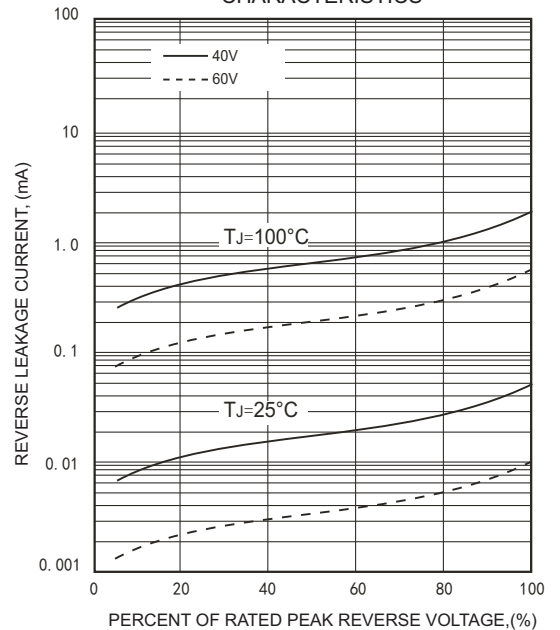
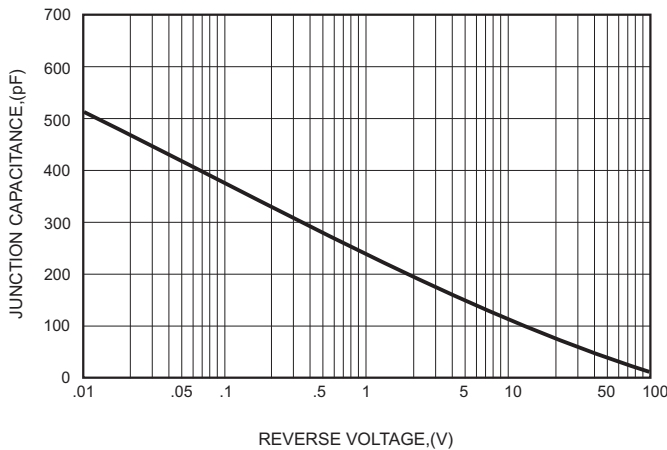




FIG.4-TYPICAL JUNCTION CAPACITANCE

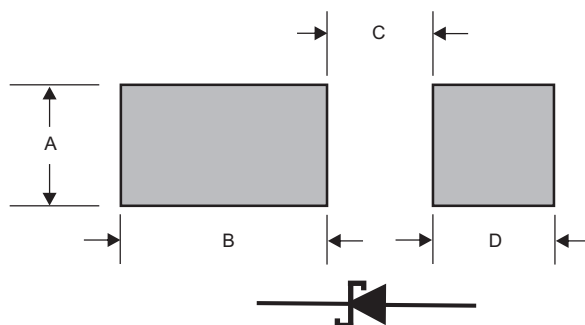


Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SKM240-MST	24
SKM260-MST	26

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
SOD-123ST	0.036 (0.90)	0.084 (2.10)	0.032 (0.80)	0.032 (0.80)