

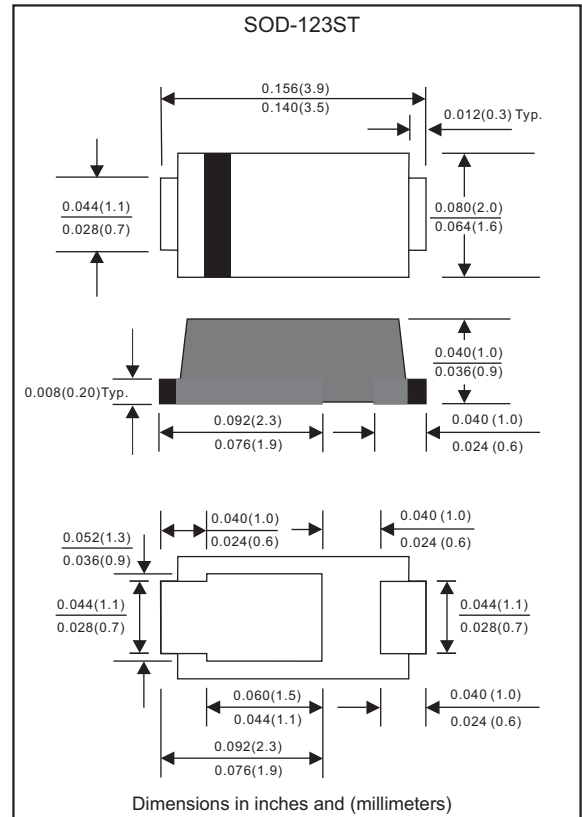
Features

- Well package design with solder pad on the bottom for best thermal performance
- 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
- Lead-free parts meet RoHS requirements
- Compliant to Halogen-free

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123ST / MINI SMA
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline



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

PARAMETER	SYMBOLS	AS340-MST	AS360-MST	AS3100-MST	AS3150-MST	AS3200-MST	UNITS
Maximum repetitive peak reverse voltage	VRRM	40	60	100	150	200	V
Maximum RMS voltage	VRMS	28	42	70	105	140	V
Maximum continuous reverse voltage	VR	40	60	100	150	200	V
Maximum average forward rectified current	Io	3.0					A
Non-repetitive peak forward surge current 8.3ms single half sine-wave	IFSM	80		70			A
Typical junction capacitance (Note 1)	CJ	150	110	70	75	65	pF
Operating junction temperature range	TJ	-55 to +125	-55 to +150				°C
Storage temperature range	TSTG	-65 to +175					°C

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

PARAMETER	SYMBOLS	AS340-MST	AS360-MST	AS3100-MST	AS3150-MST	AS3200-MST	UNITS
Maximum instantaneous forward voltage at $I_F=3.0\text{A}$	V_F	0.55	0.70	0.85	0.90	0.92	V
Maximum reverse leakage current $T_J=25^{\circ}\text{C}$ at rated V_R $T_J=100^{\circ}\text{C}$	I_R	0.5 20		0.05 10	0.01 5		mA mA

Thermal characteristics

PARAMETER	SYMBOLS	AS340-MST	AS360-MST	AS3100-MST	AS3150-MST	AS3200-MST	UNITS
Typical thermal resistance junction to ambient (Note 2)	$R_{\theta JA}$	58					$^{\circ}\text{C/W}$
Typical thermal resistance junction to case (Note 2)	$R_{\theta JC}$	26					$^{\circ}\text{C/W}$

Notes1: Measured at 1MHz and applied reverse voltage of 4.0V D.C

2: Mounted on FR-4 PCB copper, minimum recommended pad layout

Rating and characteristic curves (AS340-MST THRU AS3200-MST)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

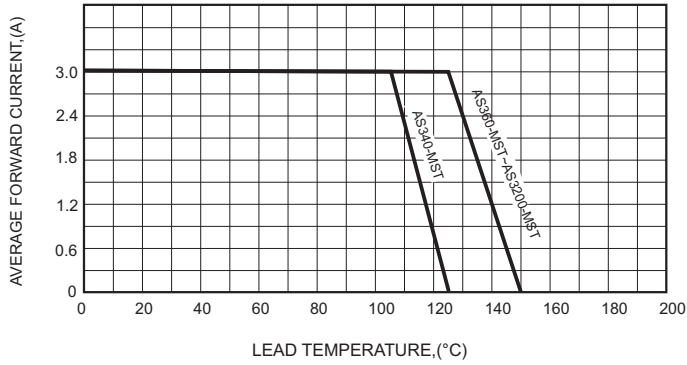


FIG.2-TYPICAL FORWARD CHARACTERISTICS

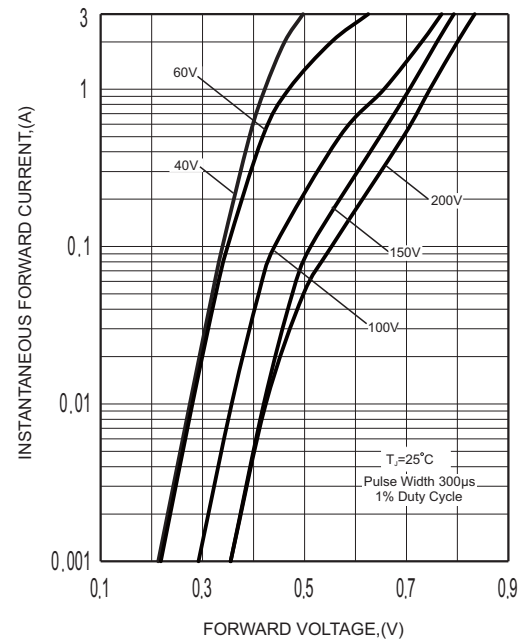


FIG.3A-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

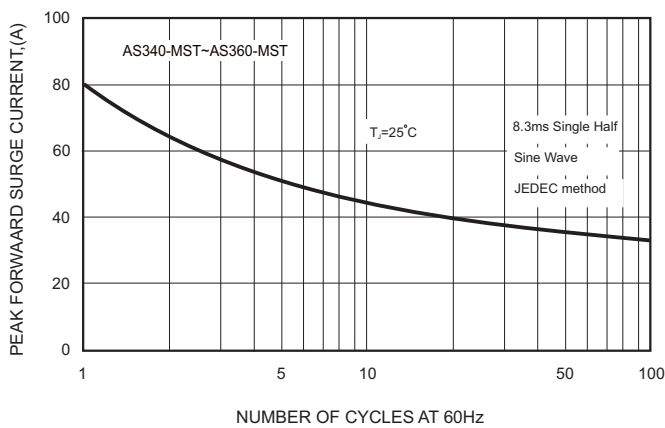


FIG.3B-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

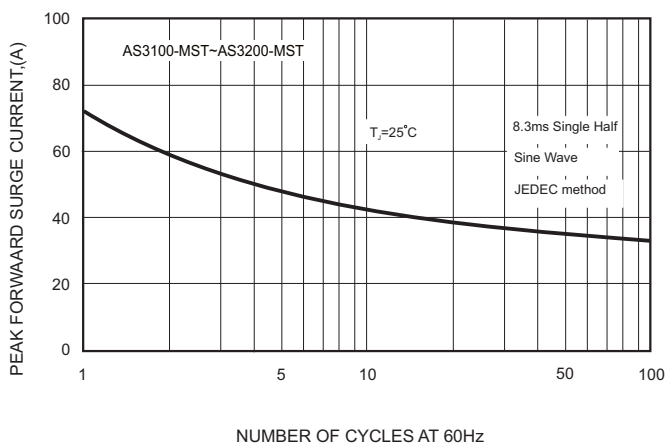
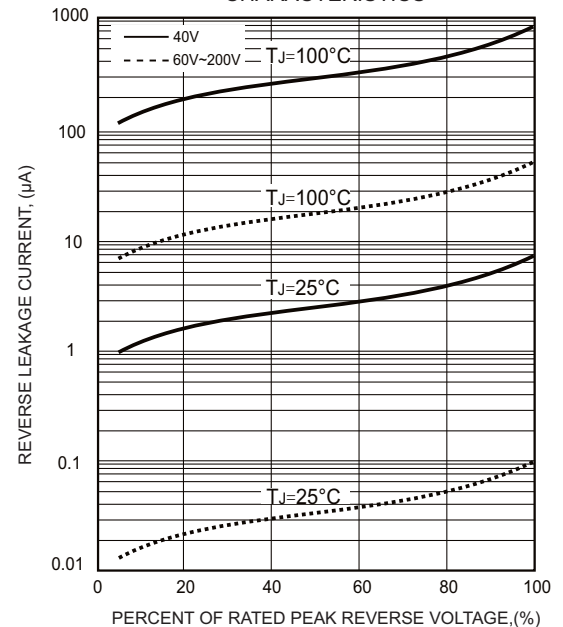


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



Rating and characteristic curves (AS340-MST THRU AS3200-MST)

FIG.5A-TYPICAL JUNCTION CAPACITANCE

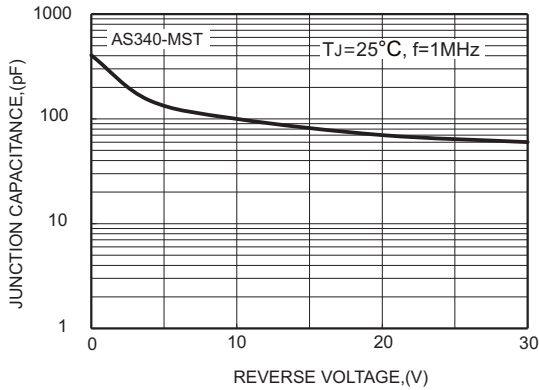


FIG.5B-TYPICAL JUNCTION CAPACITANCE

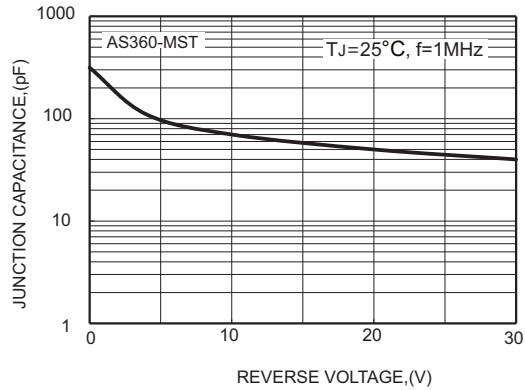


FIG.5C-TYPICAL JUNCTION CAPACITANCE

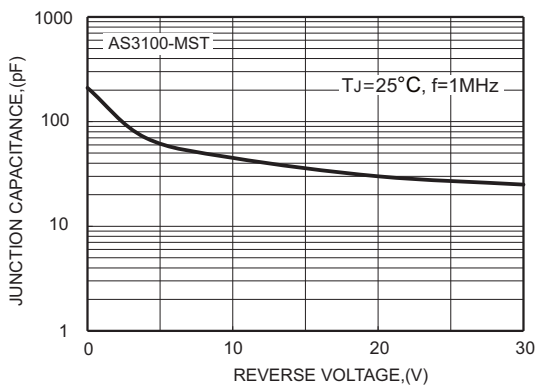


FIG.5D-TYPICAL JUNCTION CAPACITANCE

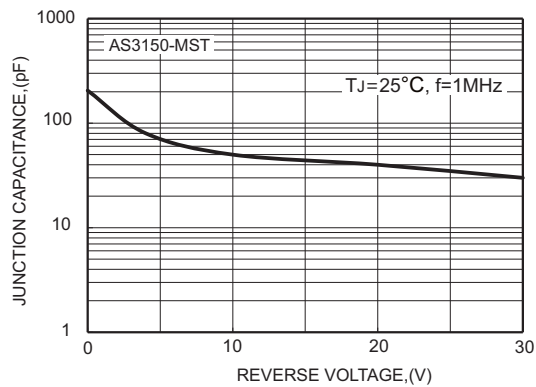
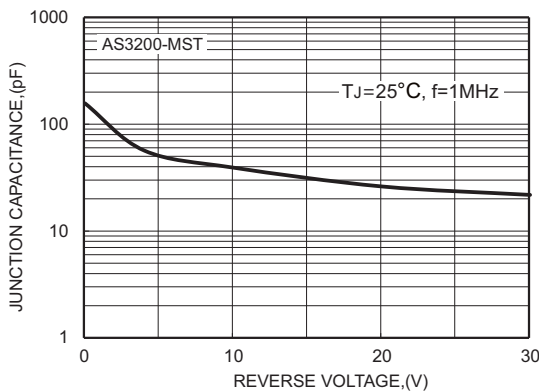


FIG.5E-TYPICAL JUNCTION CAPACITANCE



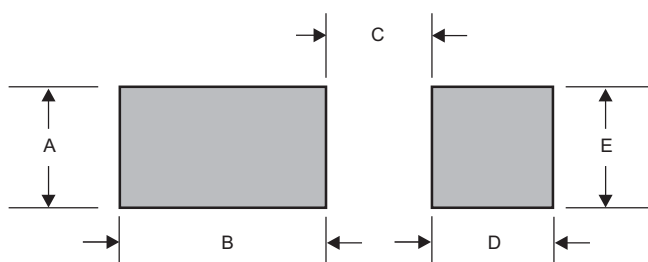
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
AS340-MST	34
AS360-MST	36
AS3100-MST	310
AS3150-MST	315
AS3200-MST	320

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D	E
SOD-123ST	0.060 (1.50)	0.095 (2.40)	0.020 (0.50)	0.044 (1.10)	0.049 (1.25)