

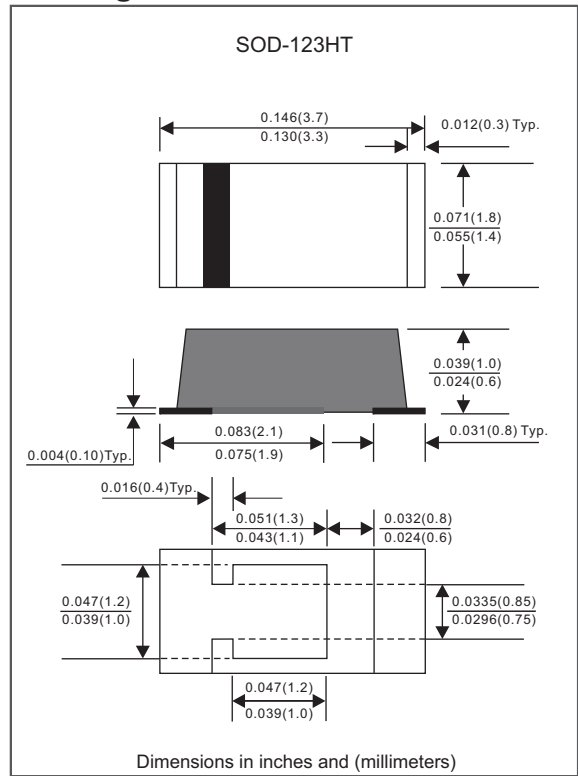
Features

- 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-123HT
- 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	AS320-MHT	AS330-MHT	AS340-MHT	AS350-MHT	AS360-MHT	AS380-MHT	AS3100-MHT	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum continuous reverse voltage	V_R	20	30	40	50	60	80	100	V
Maximum average forward rectified current	I_O	3.0							A
Non-repetitive peak forward surge current 8.3ms single half sine-wave	I_{FSM}	70							A
Typical diode junction capacitance (Note 1)	C_J	160							pF
Operating junction temperature range	T_J	-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	SYMBOLS	AS320-MHT	AS330-MHT	AS340-MHT	AS350-MHT	AS360-MHT	AS380-MHT	AS3100-MHT	UNITS
Maximum instantaneous forward voltage at $I_F=3.0A$	V_F	0.55			0.70		0.85		V
Maximum reverse leakage current at rated V_R	I_R				0.2 10				mA mA

Thermal characteristics

PARAMETER	SYMBOLS	AS320-MHT	AS330-MHT	AS340-MHT	AS350-MHT	AS360-MHT	AS380-MHT	AS3100-MHT	UNITS	
Typical thermal resistance junction to ambient (Note 2)	$R_{\theta JA}$	70								$^\circ\text{C} / \text{W}$
Typical thermal resistance junction to case (Note 2)	$R_{\theta JC}$	35								$^\circ\text{C} / \text{W}$

Notes 1: $f=1\text{MHz}$ and applied 4V DC reverse voltage
 2: Mounted on FR-4 PCB Copper, minimum recommended pad layout

Rating and characteristic curves (AS320-MHT THRU AS3100-MHT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

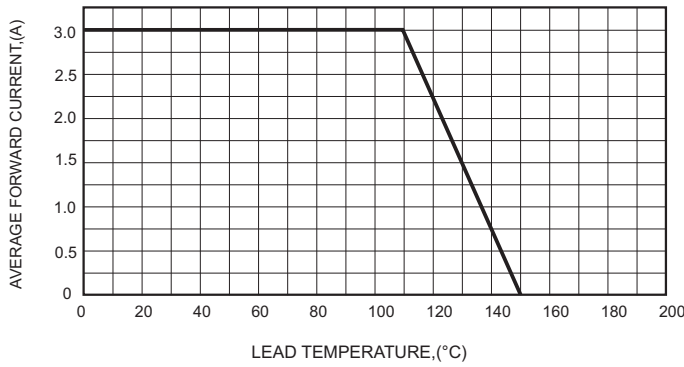


FIG.2-TYPICAL FORWARD CHARACTERISTICS

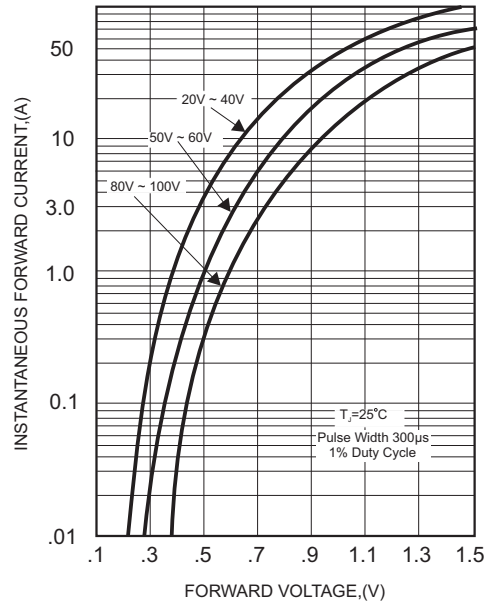


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

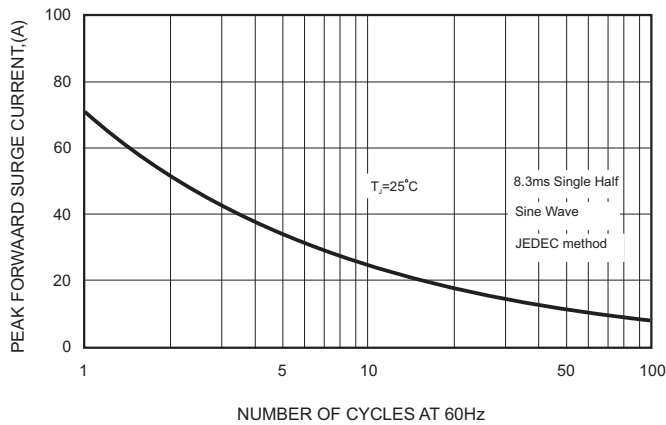


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

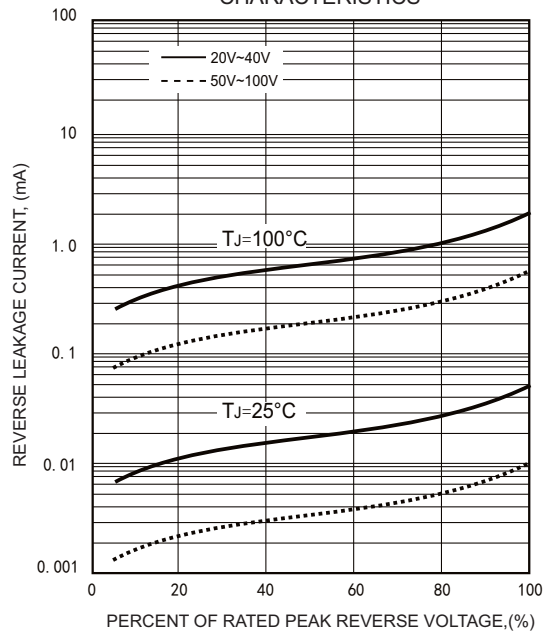
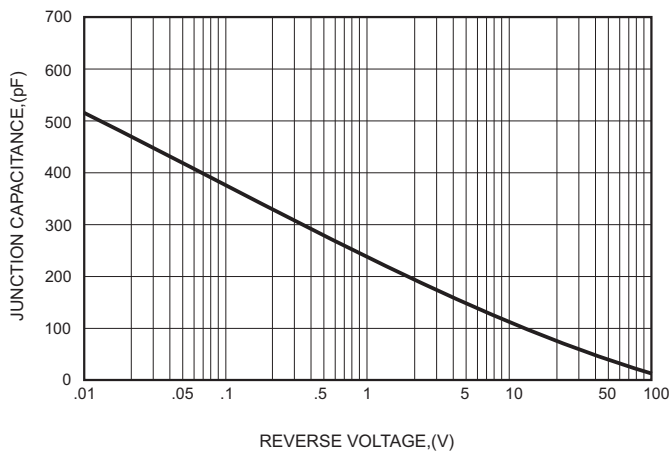




FIG.4-TYPICAL JUNCTION CAPACITANCE



Pinning information

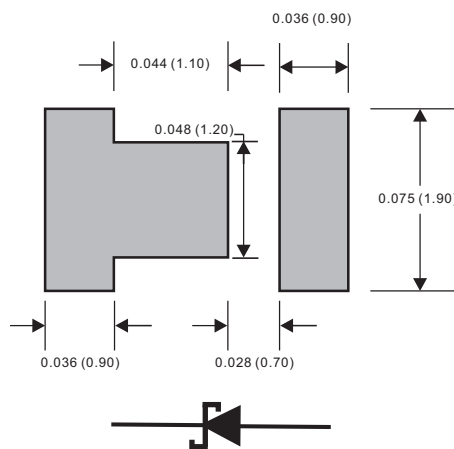
Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
AS320-MHT	32
AS330-MHT	33
AS340-MHT	34
AS350-MHT	35
AS360-MHT	36
AS380-MHT	38
AS3100-MHT	310

Suggested solder pad layout

SOD-123HT



Dimensions in inches and (millimeters)