SS3040HE THRU SS30200HE

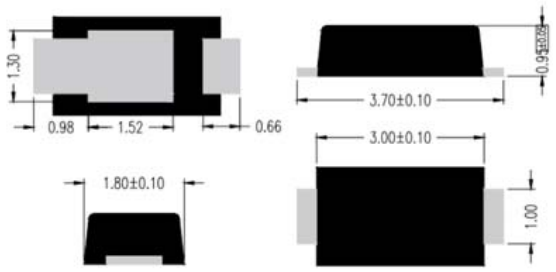
3.0A Surface Mount Schottky Barrier Rectifiers

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction,majority carrier conduction
- Low power loss,high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260℃/10 seconds
- Compliant to RoHS Directive 2011/65/EU
- Compliant to Halogen-free

Package outline

SOD-123HE



Dimensions in inches and (millimeters)

Mechanical data

- **Case**: JEDEC SOD-123HE molded plastic body
- **Terminals**: Plated axial leads, solderable per MIL-STD-750, Method 2026
- **Polarity**: Color band denotes cathode end
- **Mounting Position**: Any

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	*SYMBOLS*	SS3040HE	SS3060HE	SS30100HE	SS30200HE	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	100	200	V
Maximum RMS voltage	V_{RMS}	28	42	70	140	V
Maximum DC blocking voltage	V_{DC}	40	60	100	200	V
Maximum average forward rectified current at T_L(see fig.1)	$I_{(AV)}$	3.0				A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80				A
Maximum instantaneous forward voltage at 3.0A	V_F	0.53	0.65	0.85	0.92	V
Maximum DC reverse current T_A=25℃	I_R	0.2		0.02		mA
at rated DC blocking voltage T_A=100℃		10.0		5.0	2.0	
Typical junction capacitance (NOTE 1)	C_J	240				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	80				°C/W
Operating junction temperature range	$T_{J,}$	-55 to +150				°C
Storage temperature range	T_{STG}	-55 to +150				°C

Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.P.C.B. mounted with 2.0x2.0"(5.0x5.0cm) copper pad areas

SS3040HE THRU SS30200HE

3.0A Surface Mount Schottky Barrier Rectifiers

Rating and characteristic curves

FIG. 1- FORWARD CURRENT DERATING CURVE

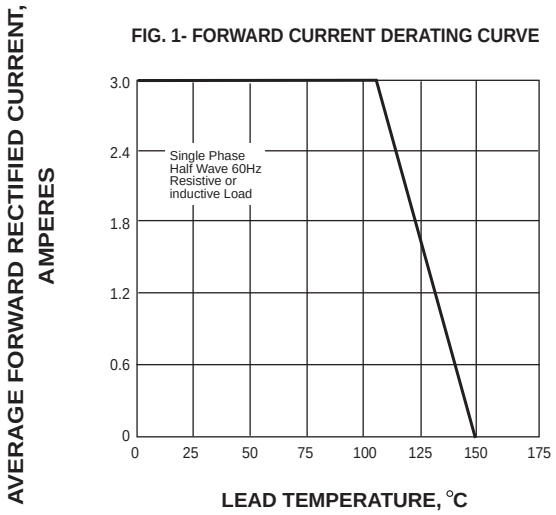


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

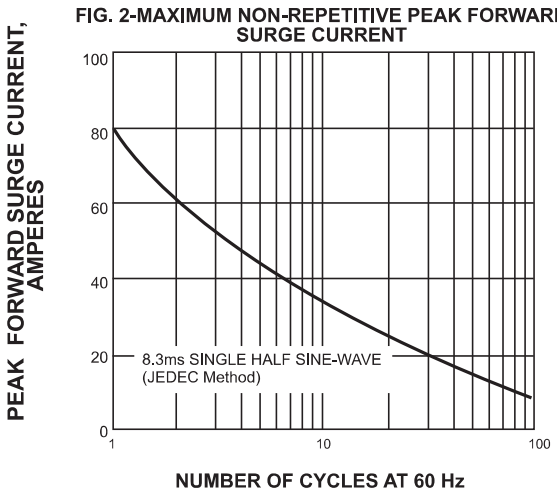


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

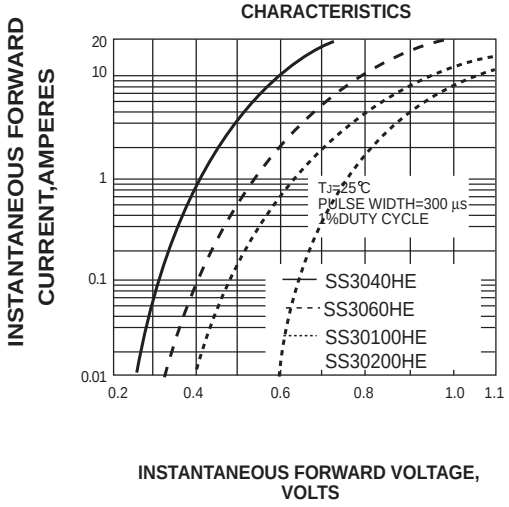


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

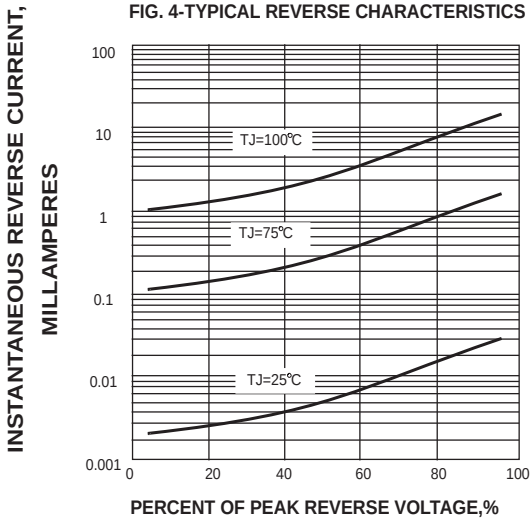
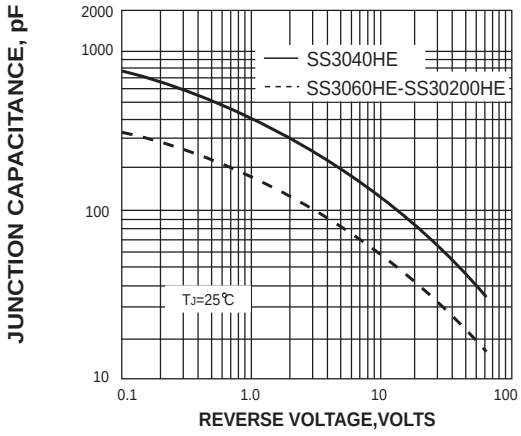


FIG. 5-TYPICAL JUNCTION CAPACITANCE



Pinning information

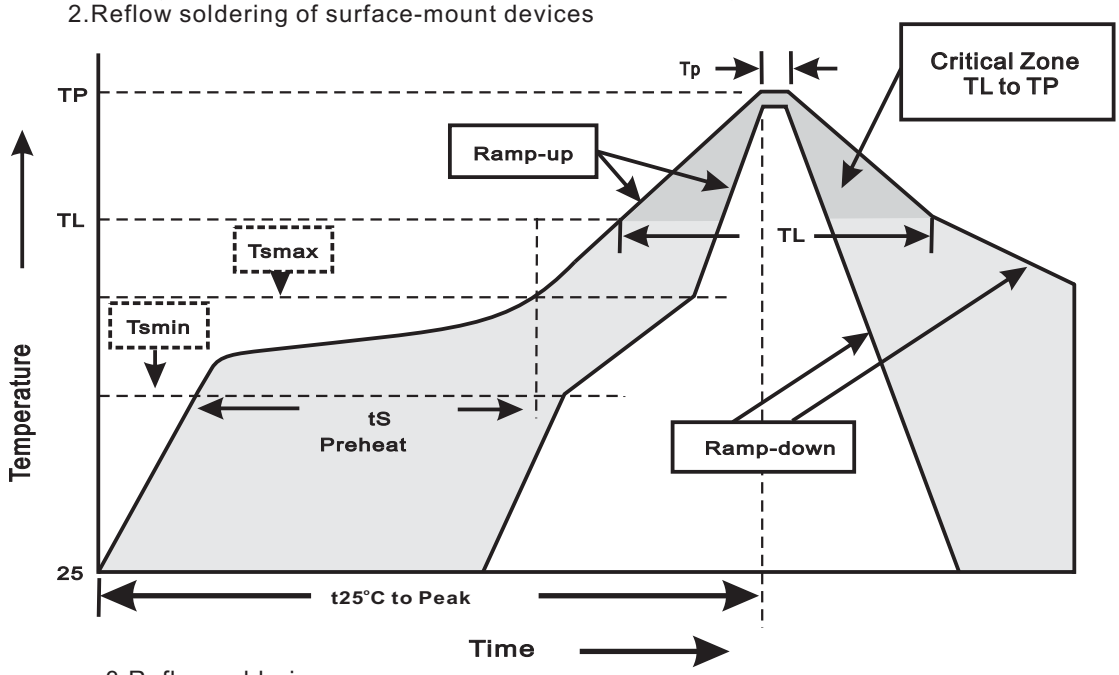
Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SS3040HE	F06A
SS3060HE	3U6
SS30100HE	EF
SS30200HE	EJ

Suggested thermal profiles for soldering processes

1.Storage environment: Temperature=5°C~40°C Humidity=55%±25%
2.Reflow soldering of surface-mount devices



3.Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(T_L to T_P)	<3°C/sec
Preheat -Temperature Min(Tsmin) -Temperature Max(Tsmax) -Time(min to max)(t_s)	 150°C 200°C 60~120sec
Tsmax to T_L -Ramp-upRate	 <3°C/sec
Time maintained above: -Temperature(T_L) -Time(t_L)	 217°C 60~260sec
Peak Temperature(T_P)	255°C-0/+5°C
Time within 5°C of actual Peak Temperature(t_P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes