

Features

- The plastic package carries UL Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals



SMA (DO-214AC)

Mechanical Characteristics

- Case: SMA (DO-214AC) package molded plastic body over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Absolute Maximum Ratings and Electrical Parameters (TA=25°C unless otherwise specified)

PARAMETER		SYMBOL	MURS160A	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	600	V
Maximum RMS voltage		V_{RMS}	420	V
Maximum DC blocking voltage		V_{DC}	600	V
Maximum average forward rectified current		I_{AV}	1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	30	A
Maximum instantaneous forward voltage at 1A		V_F	1.28	V
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	I_R	5	uA
	$T_A=100^\circ\text{C}$	I_{RT}	50	uA
Maximum reverse recovery time (NOTE 1)		t_{rr}	48	ns
Typical junction capacitance (NOTE 2)		C_J	15	pF
Typical Thermal Resistance Junction to Ambient (NOTE3)		$R_{\theta JA}$	85	°C/W
Typical Thermal Resistance Junction to Lead (NOTE3)		$R_{\theta JL}$	28	°C/W
Operating Temperature Range		T_J	-55 to 150	°C
Storage Temperature Range		T_{STG}	-55 to 150	°C

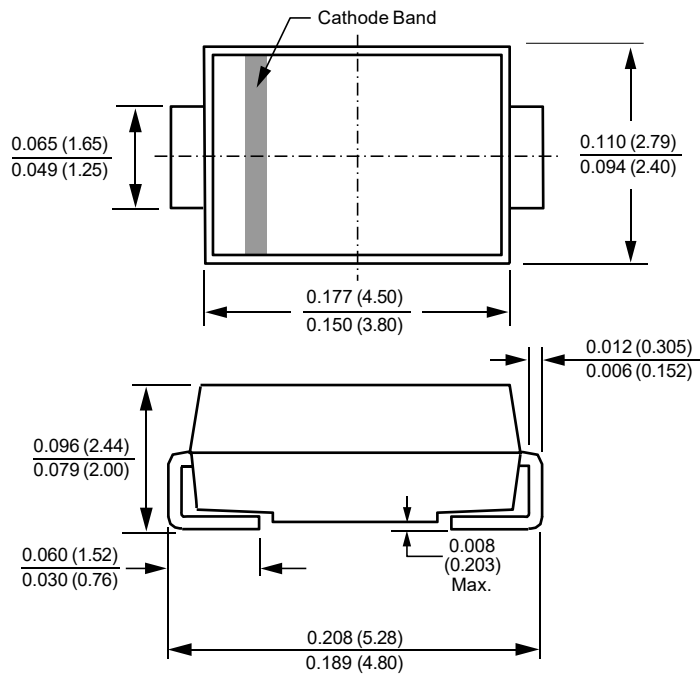
Note1: Reverse recovery condition $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

Note2: Measured at 1MHz and applied reverse voltage of 4.0V DC.

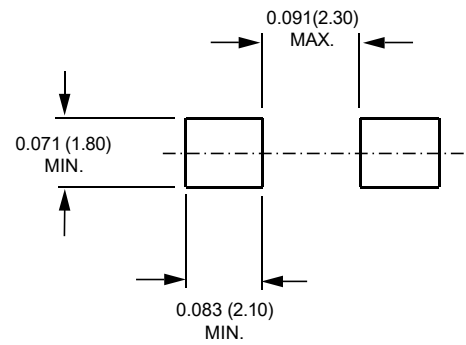
Note3: PCB. mounted with 7×7mm copper pad areas

Package Outline Dimensions in inches (millimeters)

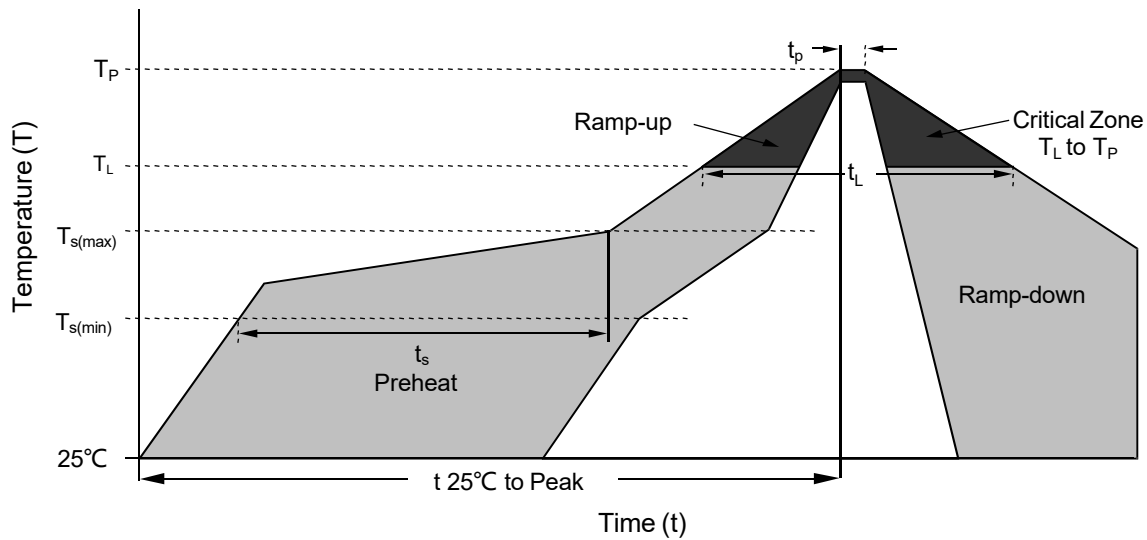
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Mounting Pad Layout



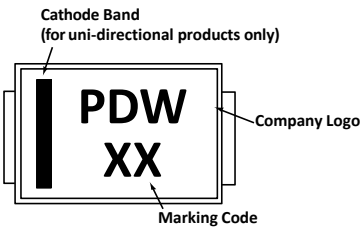
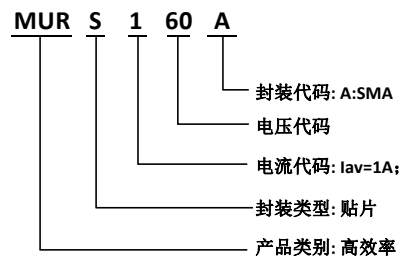
Soldering Parameters



Reflow Condition		Lead-free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Time (t_L)	60 – 150 secs
Peak Temperature (T_P)		260 ^{+0/-5} °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 secs
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (t)		8 minutes Max.
Do not exceed		260°C

Part Numbering System

Part Marking System



Summary of Packing Options

Package	Packing Description	Packing Quantity
SMA	Tape/Reel, 7" reel	1800
	Tape/Reel, 13" reel	7500

Tape and Reel Specification

