

### ■ Features

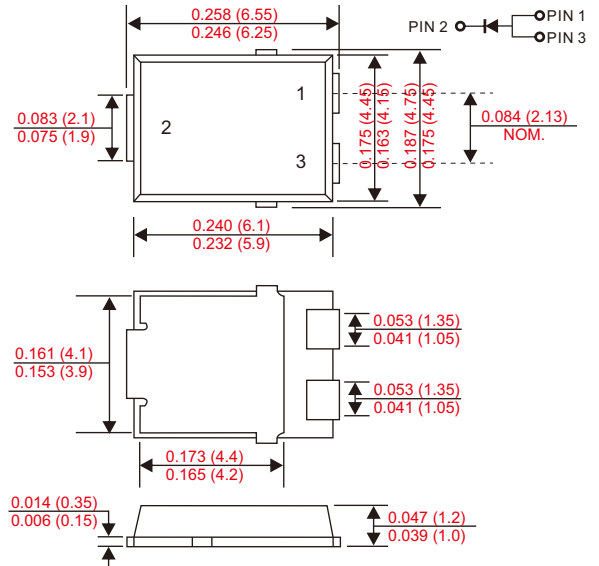
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CSP10S60SAG-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, TO-277A.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.093 grams.

### ■ Outline

TO-277A



Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	CSP10S60SA-A			UNIT
Marking code			CSP10S60SA			
Peak repetitive reverse voltage		$V_{RRM}$	60			V
Working peak reverse voltage		$V_{RWM}$				
DC blocking voltage		$V_{RM}$				
Forward rectified current		$I_O$	10			A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	280			A
Peak repetitive reverse surge current	2us - 1kHz	$I_{RRM}$	2			A
Thermal resistance(1)	Junction to ambient	$R_{\theta JA}$	60			°C/W
Operating and Storage temperature		$T_J, T_{STG}$	-65 ~ +150			°C
Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop	$I_F = 10A, T_J = 25^\circ C$	$V_F$			510	mV
	$I_F = 10A, T_J = 125^\circ C$				490	
Reverse current	$V_R = V_{RRM}, T_J = 25^\circ C$	$I_R$			0.5	mA
	$V_R = V_{RRM}, T_J = 125^\circ C$				100	

Note : 1.FR-4 PCB, 2oz. Copper.  
2.Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8mm x 14.4mm. Anode pad dimensions 5.6mm x 14.4mm.

Rating and characteristic curves

Fig. 1 - Pulse Derating Curve

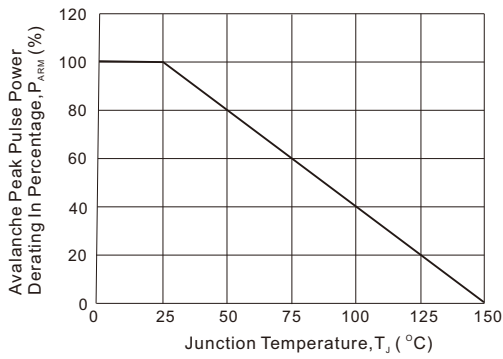


Fig. 2 - Instantaneous Forward Characteristics

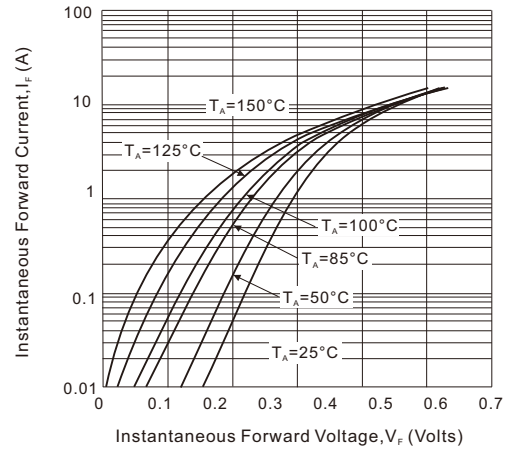


Fig. 3 - Reverse Characteristics

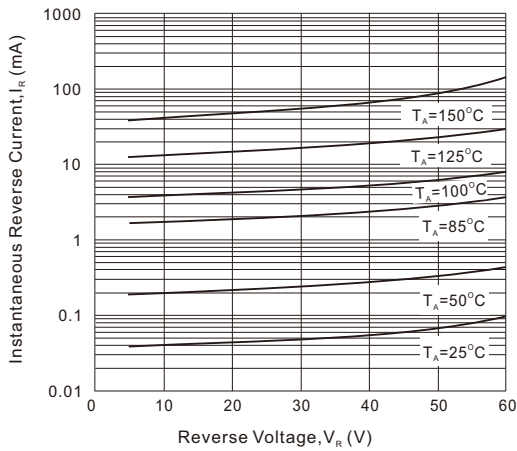


Fig. 4 - Maximum Avalanche Power Curve

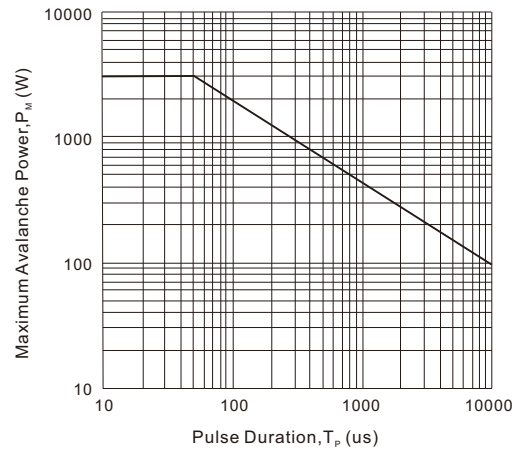


Fig. 5 - Total Capacitance VS. Reverse Voltage

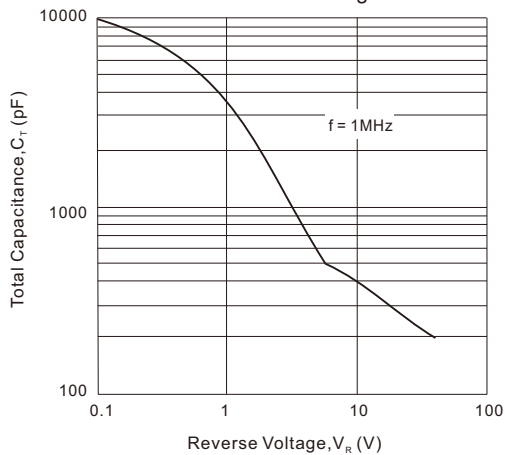
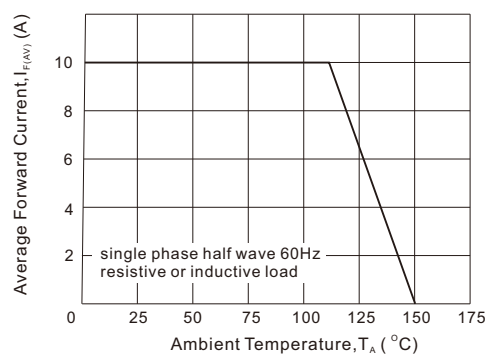
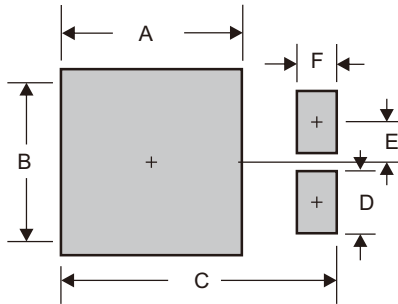


Fig. 6 - Forward Current Derating Curve



■ TO-277A foot print



A	B	C	D	E	F
0.185 (4.70)	0.189 (4.80)	0.268 (6.80)	0.055 (1.40)	0.046 (1.03)	0.050 (1.28)

Dimensions in inches and (millimeters)

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