CD10L100S

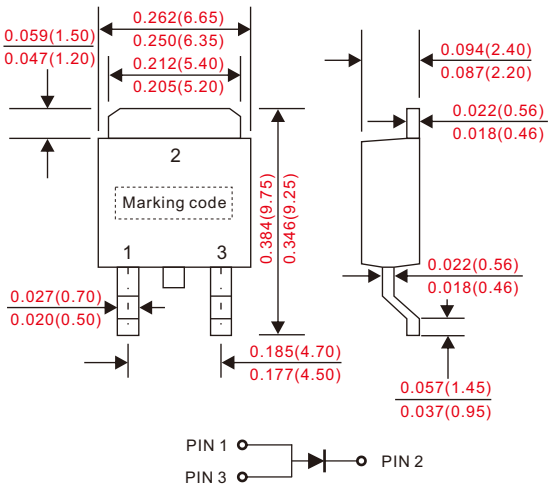
10A Surface Mount Trench Schottky Rectifier

■ Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex.CD10L100SG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Outline

DPAK(TO-252)



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, DPAK / TO-252.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.34 gram.

■ 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	CD10L100S	UNIT
Marking code			CD10L100S	
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage		V_{RRM} V_{RWM} V_{RM}	100	V
RMS reverse voltage		$V_{R(RMS)}$	70	V
Forward rectified current		I_O	10	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	200	A
Thermal resistance(1)	Junction to case	$R_{\theta JC}$	3.0	°C/W
Operating and Storage temperature		T_J, T_{STG}	-55 ~ +150	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop	I_F = 2A, T_J = 25°C	V_F		460	490	mV
	I_F = 2A, T_J = 125°C			370	400	
	I_F = 5A, T_J = 25°C			550	580	
	I_F = 10A, T_J = 25°C			690	750	
	I_F = 10A, T_J = 125°C			620	650	
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R			0.2	mA
	V_R = V_{RRM} T_J = 125°C				20	

Note : 1.Thermal resistance from junction to case per leg, with heatsink size(1.35" x 0.95" x 0.18") Al-plate.
2.Device mounted on FR-4 substrate PC board, 1oz copper with minimum recommended pad layout.
3.Device mounted on Polymide substate, 1*MRP, 2oz, copper, PC boards.

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■ Rating and characteristic curves

Fig.4 - Forward Current Derating Curve

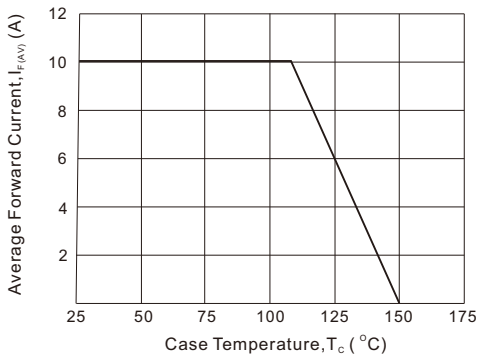


Fig. 2 - Instantaneous Forward Characteristics

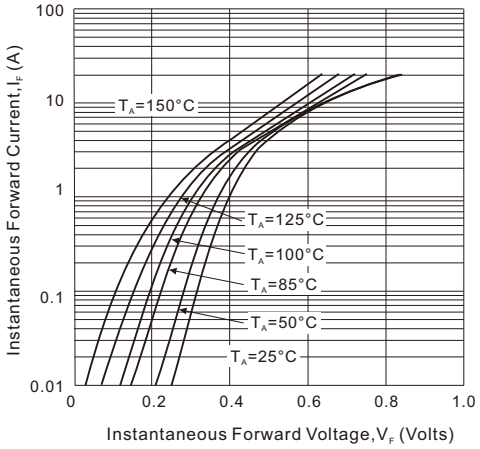
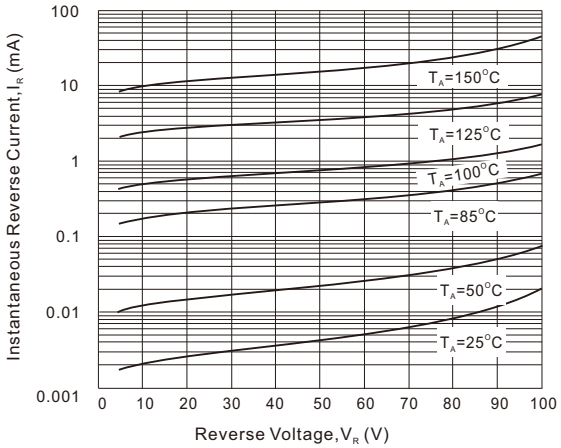


Fig. 3 - Reverse Characteristics



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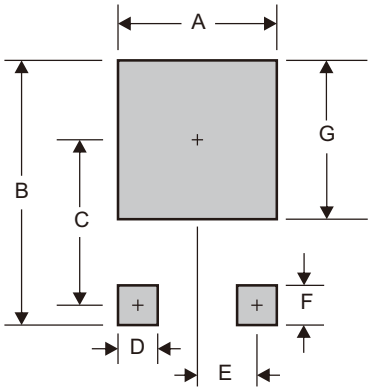
■ DPAK(TO-252) foot print



A	B	C	D	E	F	G
0.276 (7.00)	0.457 (11.60)	0.272 (6.90)	0.059 (1.50)	0.091 (2.30)	0.098 (2.50)	0.276 (7.00)

Dimensions in inches and (millimeters)

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