

Main Product Characteristics

$I_{F(AV)}$	2x10A
V_{RRM}	45V
T_J	150°C
$V_{(TYP)}$	0.42V

Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CSD20L45CTG-A.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical data

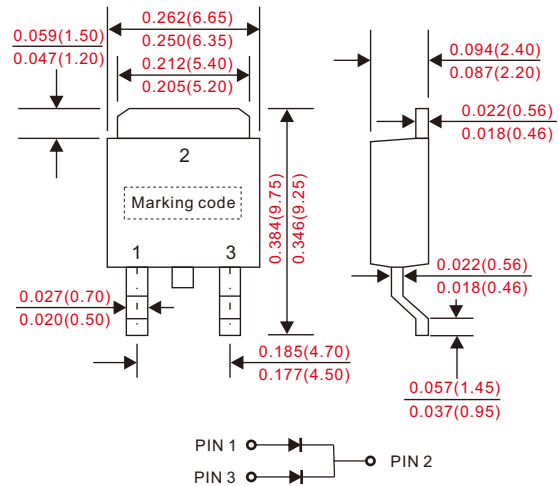
- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, DPAK / TO-252.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.34 gram.

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%.

Outline

DPAK(TO-252)



Parameter	Conditions	Symbol	CSD20L45CT-A	UNIT
Marking code			CSD20L45CT	
Peak repetitive reverse voltage		V_{RRM}	45	V
Working peak reverse voltage		V_{RWM}		
DC blocking voltage		V_{RM}		
Forward rectified current		I_O	20	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	250	A
Thermal resistance(1)	Junction to case	$R_{\theta JC}$	4	°C/W
Operating and Storage temperature		T_J, T_{STG}	-55 ~ +150	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop	$I_F = 10A, T_J = 25^\circ C$	V_F			500	mV
	$I_F = 10A, T_J = 125^\circ C$			420	470	
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. Thermal resistance from junction to case per leg, with heatsink size(1.35" x 0.95" x 0.18") Al-plate.

Rating and characteristic curves

Fig. 1 - Forward Current Derating Curve

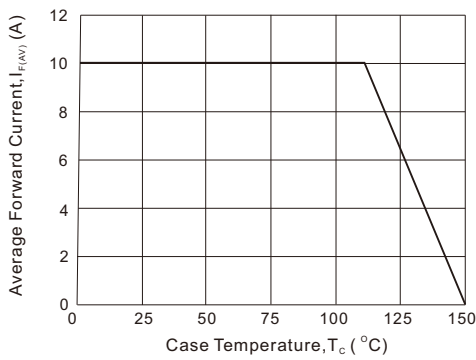


Fig. 2 - Instantaneous Forward Characteristics (per diode)

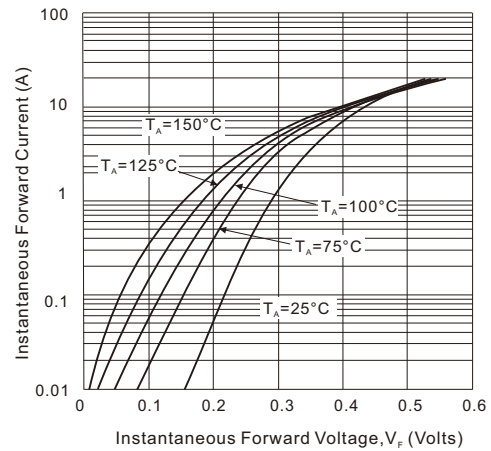
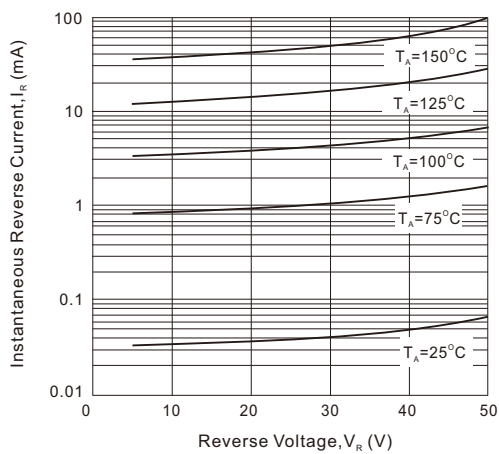
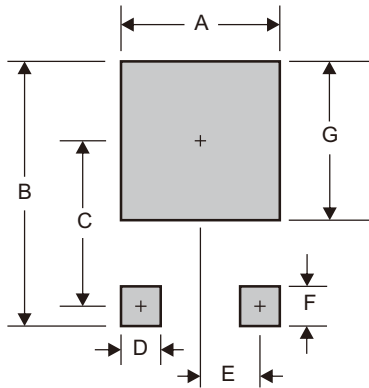


Fig. 3 - Reverse Characteristics (per diode)



■ 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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