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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

CPDVR083V3U

RoHS Device

Features

-IEC61000-4-2 (ESD) ±15 kV(Contact),±20kV(Air).

-Working voltage: 3.3V

-Low leakage current.

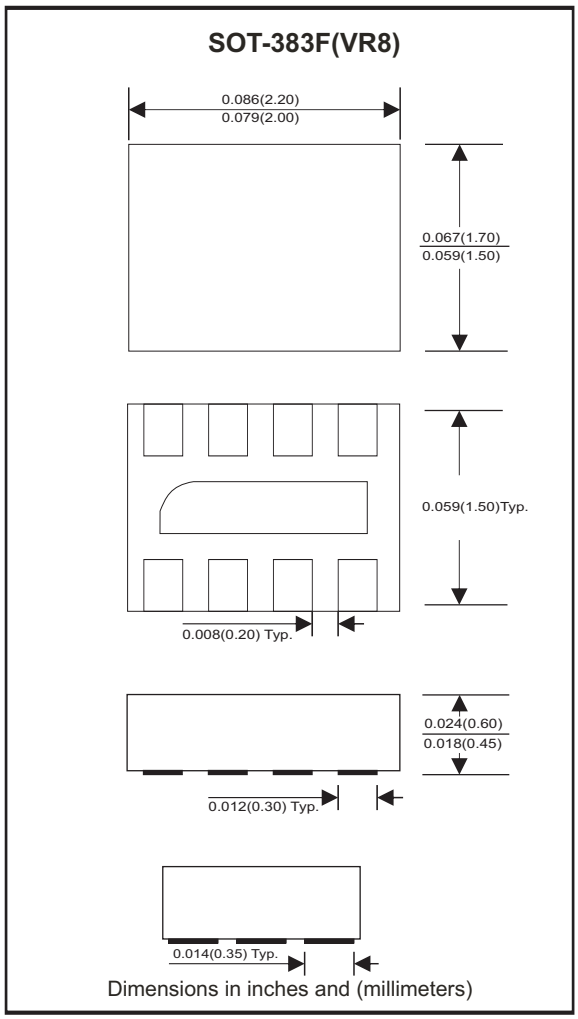
-Low operating and clamping voltages.

Mechanical data

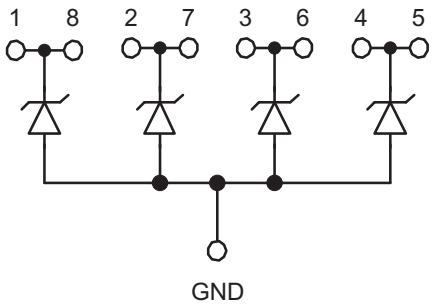
-Case: SOT-383F standard package,molded plastic.

-Terminals: Nipd, solderable per MIL-STD-750,method 2026.

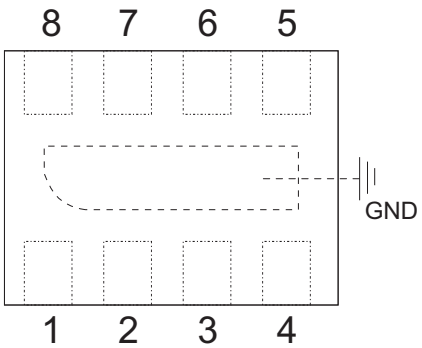
-Mounting position: Any



Circuit Diagram



Package



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power (tp = 8/20 us)	P_{PP}	40	W
Peak pulse current (tp = 8/20 us)	I_{PP}	5	A
ESD per IEC 61000-4-2(Air) **ESD per IEC 61000-4-2(Contact)**	ESD	±20 ±15	kV
Operating temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +125	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse stand-off voltage		V_{RWM}			3.3	V
Punch-through voltage	I_{PT} = 2uA	V_{PT}	3.5			V
Snap-back voltage	I_{SB} = 50mA	V_{SB}	2.8			V
Leakage current	V_R = 3.3V	I_L		0.05	0.5	uA
Clamping voltage	I_{PP} = 1 A, Tp=8/20us, Any Channel Pin to Ground	V_C			5.5	V
	I_{PP} = 5 A, Tp=8/20us, Any Channel Pin to Ground	V_C			8.0	V
Reverse clamping voltage	I_{PPR} = 1 A, Tp=8/20us, Ground to Any Channel Pin	V_{CR}			2.4	V
Junction capacitance	V_R = 0 V, f = 1MHz Any Channel Pin to Ground	C_j		25	30	pF
	V_R = 3.3 V, f = 1MHz Any Channel Pin to Ground	C_j		14		pF

RATING AND CHARACTERISTIC CURVES (CPDVR083V3U)

Fig. 1 - Non-repetitive max. peak pulse power vs. pulse time

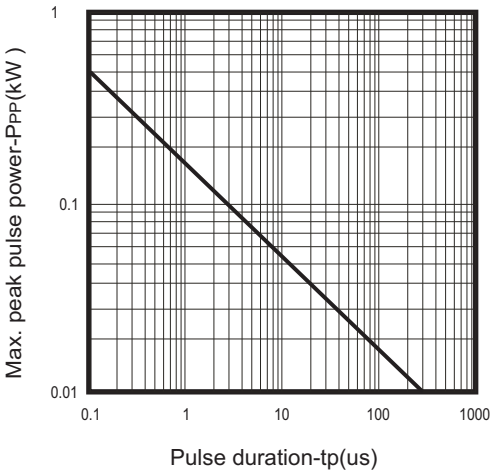


Fig. 2 - Power rating derating curve

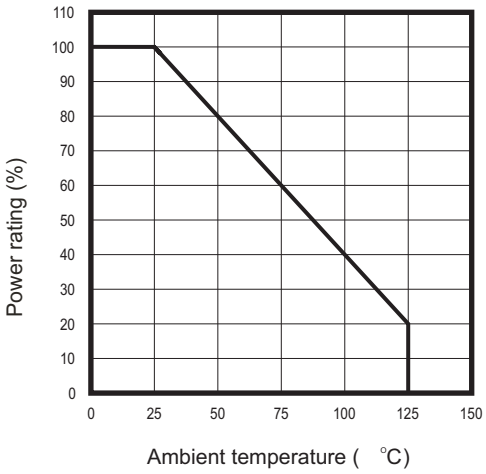


Fig.3 - Clamping voltage vs. peak pulse current

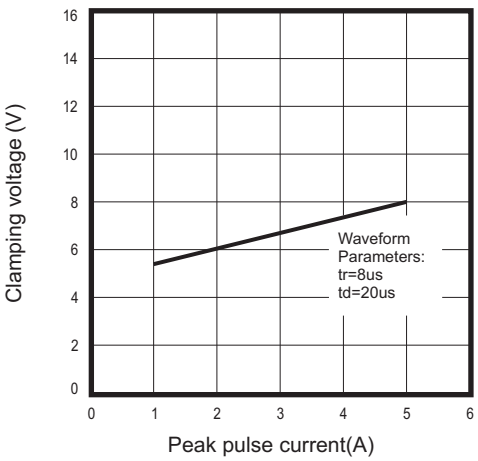


Fig.4 - Forward voltage vs. Forward current

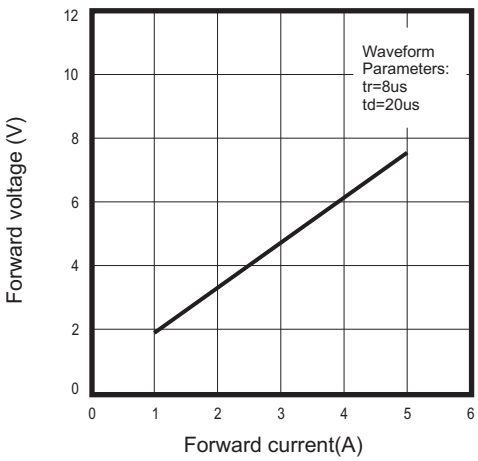
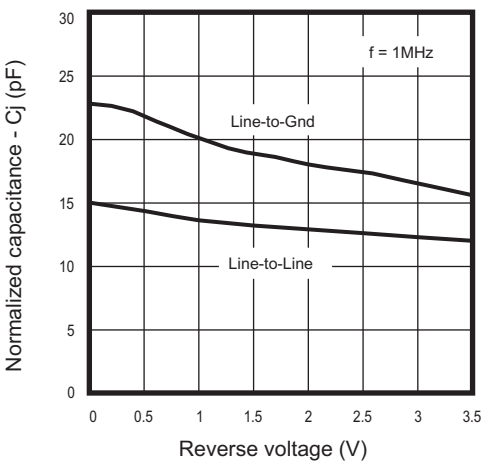
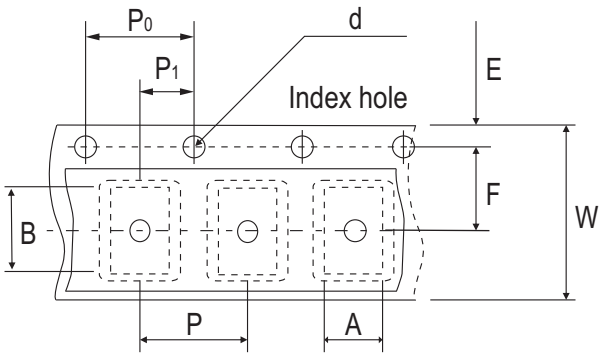
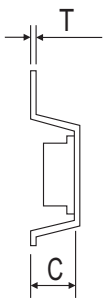


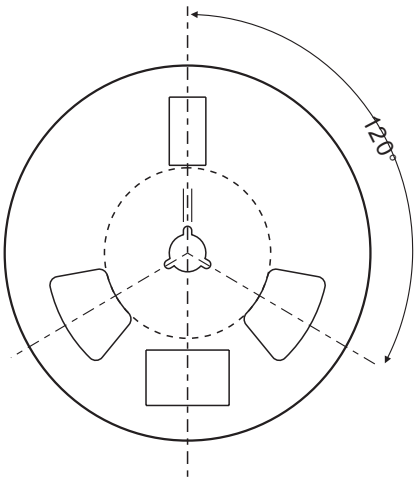
Fig.5 - Junction capacitance vs. reverse voltage

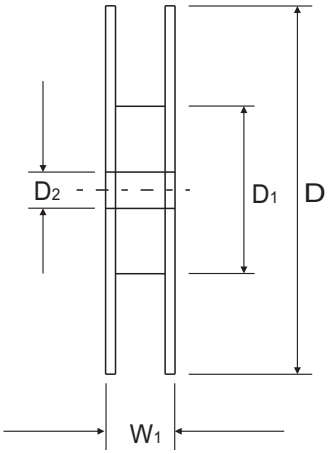


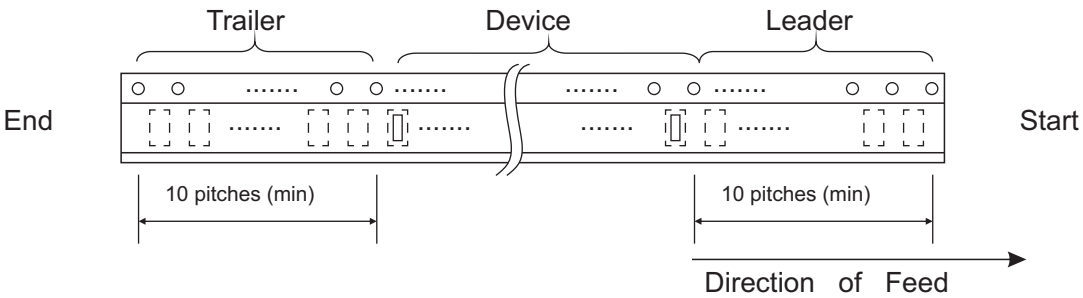
Reel Taping Specification











	SYMBOL	A	B	C	d	D	D_1	D_2
SOT-383F	(mm)	1.96 ± 0.10	2.31 ± 0.10	0.74 ± 0.10	1.55 + 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.077 ± 0.004	0.091 ± 0.004	0.029 ± 0.004	0.061 + 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
SOT-383F	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

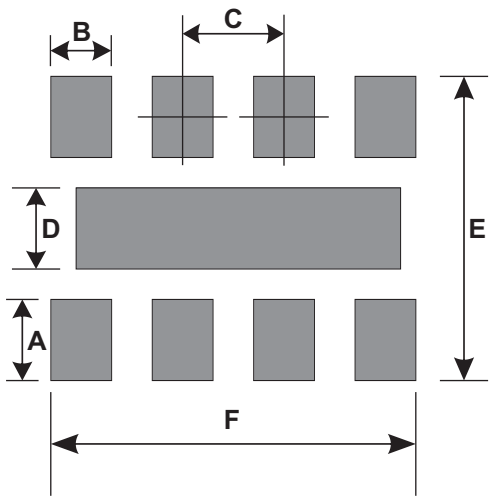
Marking Code

Part Number	Marking Code
CPDVR083V3U	E3V3

E3V3

Suggested PAD Layout

SIZE	SOT-383F(VR8)	
	(mm)	(inch)
A	0.630	0.025
B	0.300	0.012
C	0.500	0.020
D	0.450	0.018
E	2.150	0.085
F	1.800	0.071



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-383F (VR8)	3,000	7