

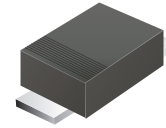
CDBAS540-HF

Reverse Voltage: 40 Volts

Forward Current: 5.0 Amp

RoHS Device

Halogen Free

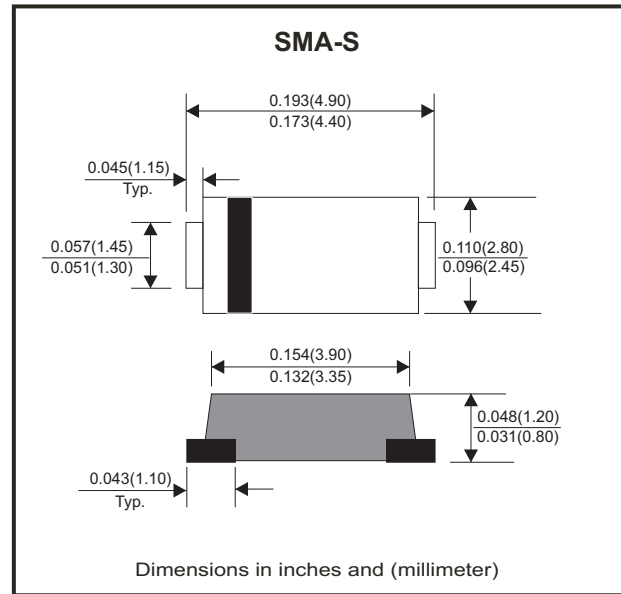


Features

- High surge and current capability.
- For use in low voltage, high frequency invertors free wheeling and polarity protection.
- Built-in strain relief.
- Silicon epitaxial planar chips.
- Metal silicon junction with guard ring.

Mechanical data

- Epoxy: UL94V-0 rate flame retardant.
- Case: Molded plastic, SMA-S.
- Terminals: Solderable per MIL-STD-750 method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any
- Weight: 0.045 grams(approx.).



Circuit diagram



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

Parameter	Symbol	CDBAS540-HF	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	40	V
Maximum DC blocking voltage	V _{DC}	40	V
Maximum RMS voltage	V _{RMS}	28	V
Maximum average forward rectified current 0.2 x0.2" (5.0x5.0mm) copper pad area, see Fig.1	I _{AV}	5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	100	A
Maximum forward voltage at 3.0A (note 1)	V _F	0.55	V
Maximum DC reverse current at rated DC blocking voltage	T _J =25°C	0.5	mA
	T _J =100°C	20	
Typical junction capacitance (note 2)	C _J	300	pF
Typical thermal resistance (note 3)	R _{θJA}	50.0	°C/W
	R _{θJL}	15.0	°C/W
Junction temperature range	T _J	-55 to +125	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Notes: 1. Pulse test: 300µs pulse width, 1% duty cycle.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
 3. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2x0.2" (5.0x5.0mm) copper pad areas.

Company reserves the right to improve product design , functions and reliability without notice.

REV: A

TYPICAL RATING AND CHARACTERISTIC CURVES (CDBAS540-HF)

Fig. 1 - Forward Current Derating Curve

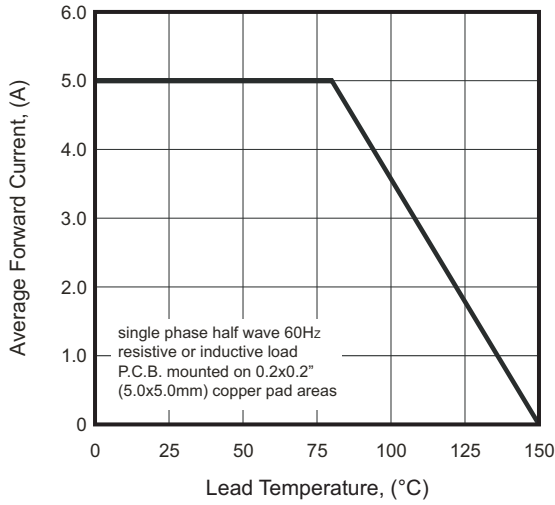


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

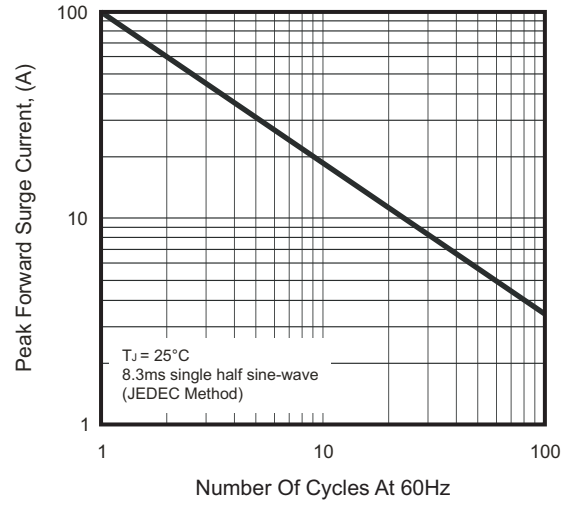


Fig. 3 - Typical Instantaneous Forward Characteristics

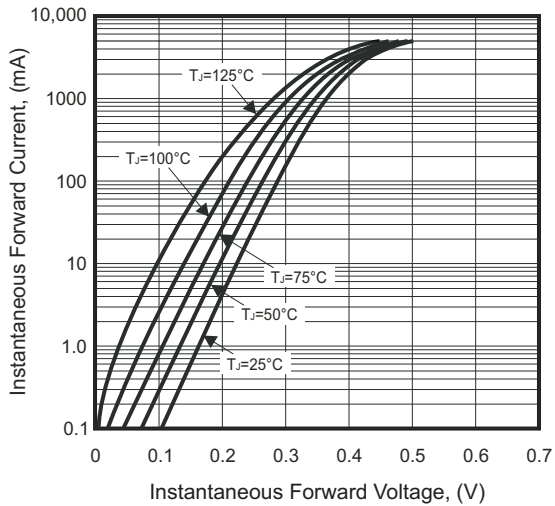


Fig. 4 - Typical Reverse Characteristics

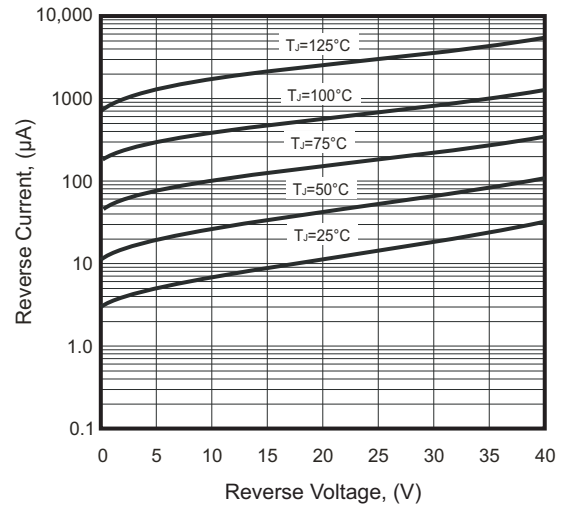
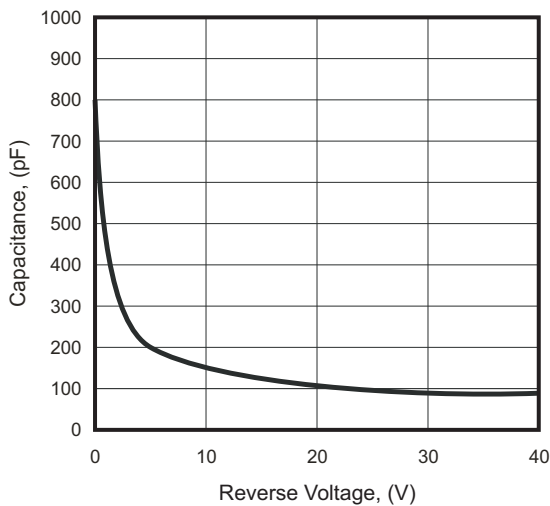


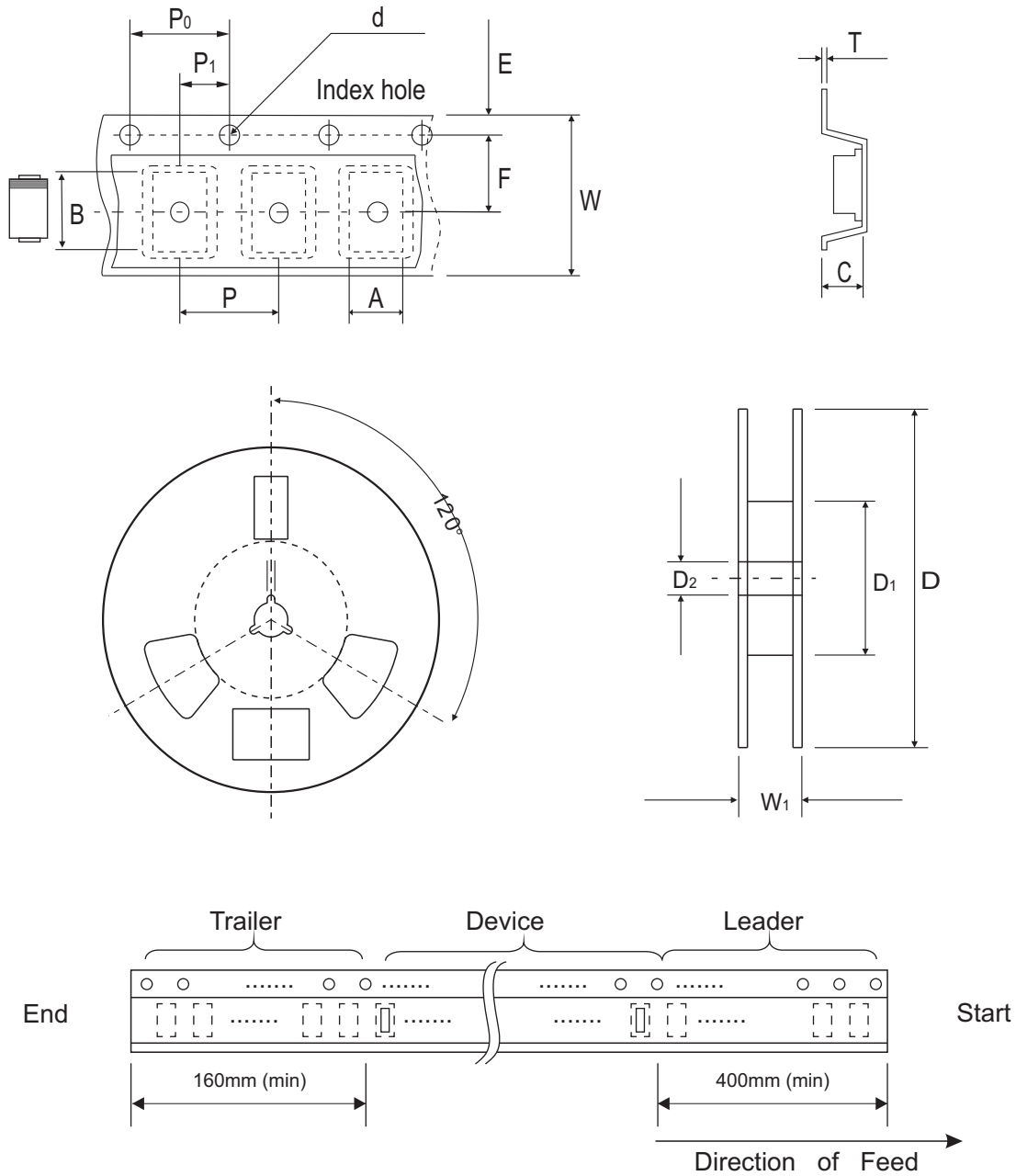
Fig. 5 - Typical Junction Capacitance



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Reel Taping Specification



SMA-S	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.85 ± 0.10	5.10 ± 0.10	1.25 ± 0.05	1.55 ± 0.05	178.00 ± 2.00	75.00 ± 2.00	13.00 ± 0.50
	(inch)	0.112 ± 0.004	0.201 ± 0.004	0.049 ± 0.002	0.061 ± 0.002	7.008 ± 0.079	2.953 ± 0.079	0.512 ± 0.020

SMA-S	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.25 ± 0.05	12.00 ± 0.10	16.80 ± 4.00
	(inch)	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.002	0.472 ± 0.004	0.661 ± 0.157

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REV: A

Marking Code

Part Number	Marking Code
CDBAS540-HF	54S

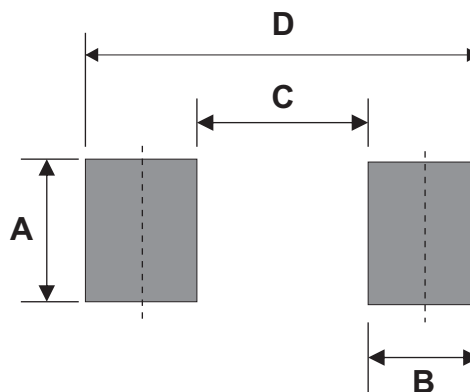


|||| = Cathod band

xxx = Product type marking code

Suggested PAD Layout

SIZE	DO-214AC/SMA-S	
	(mm)	(inch)
A	1.90	0.075
B	1.60	0.063
C	2.70	0.106
D	5.90	0.232



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AC (SMA-S)	3,000	7