

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
VOLTAGE 40 Volts CURRENT 5.0 Amperes

Features

- ◆ Ideal for surface mounted applications
- ◆ Low leakage current
- ◆ Metallurgically bonded construction
- ◆ Mounting position: Any

Mechanical Data

Epoxy: Device has UL flammability classification 94V-O

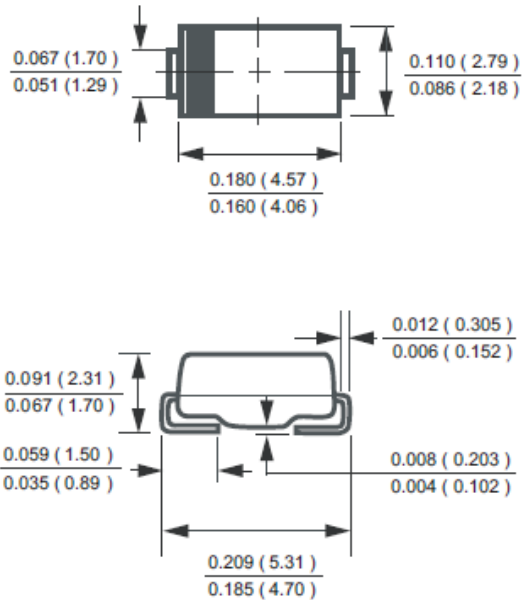
Maximum Ratings And Electrical Characteristics

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

Package Outline



DO-214AC



Dimensions in inches and (millimeters)

Maximum Ratings (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	FM540A	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	Volts
Maximum RMS Voltage	V_{RMS}	28	Volts
Maximum DC Blocking Voltage	V_{DC}	40	Volts
Maximum Average Forward Rectified Current at Ambient Temperature	I_O	5.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	140	Amps
Typical Current Squared Time	I^2T	81.34	A^2S
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	55	$^\circ\text{C/W}$
	$R_{\theta JL}$	17	
Typical Junction Capacitance (Note 2)	C_J	200	pF
Operating Temperature Range	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150	$^\circ\text{C}$

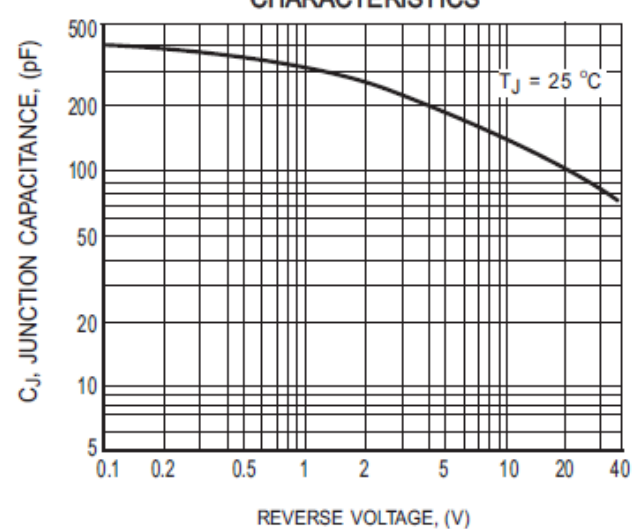
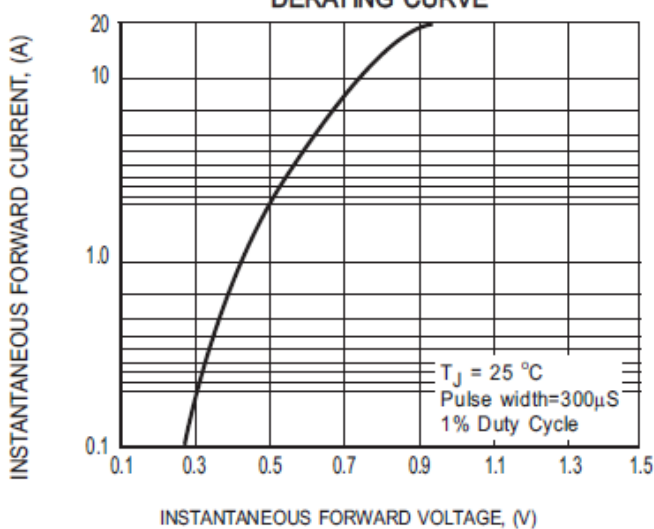
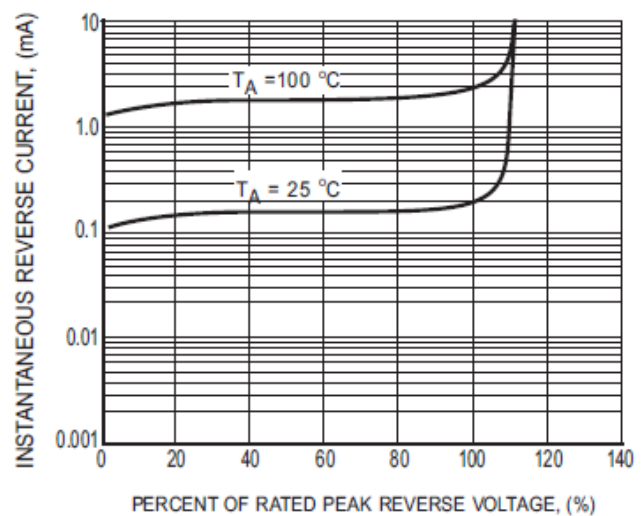
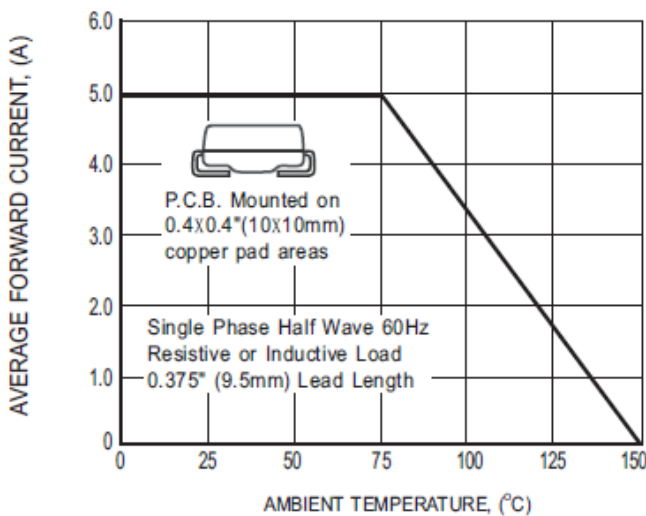
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Electrical Characteristics (@TA=25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	FM540A	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC		VF	.55	Volts
Maximum Average Revers Current at Rated DC Blocking Voltage	@TA=25°C	IR	0.2	mA
	@TA=100°C		2	mA

NOTES :

1. Thermal Resistance : Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

Rating And Characteristic Curves (FM540A)


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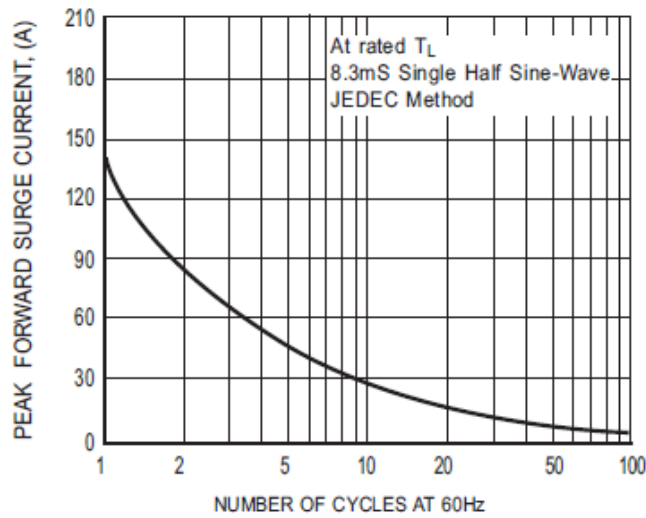
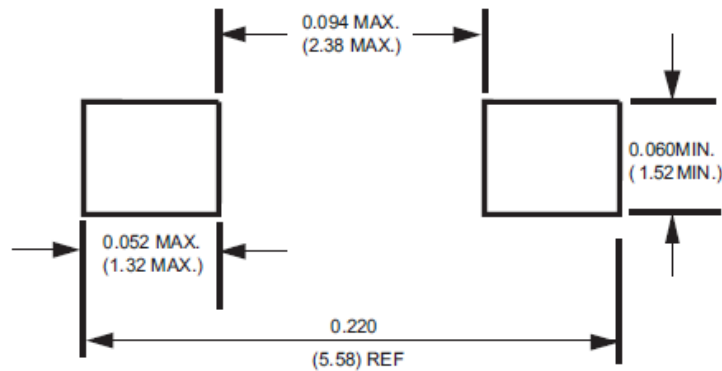


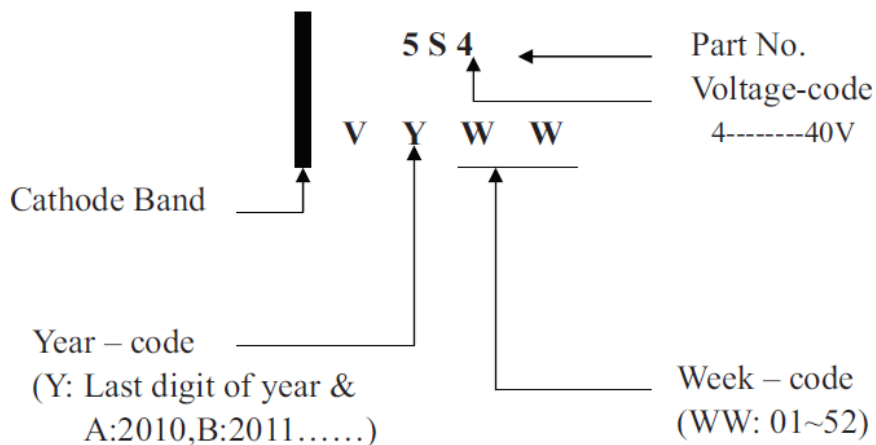
FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



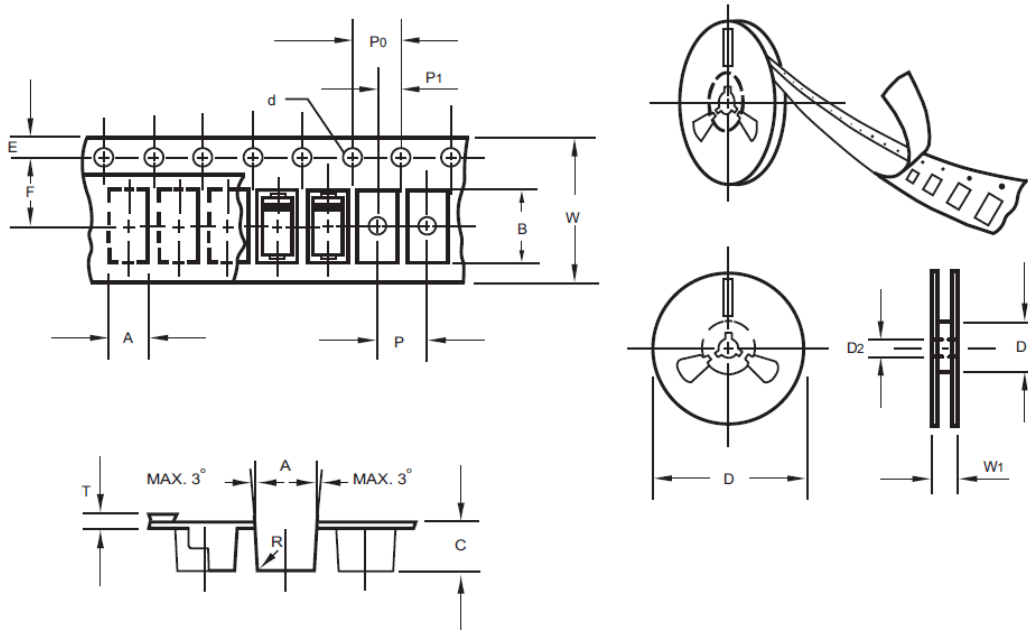
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Packaging Of Diode And Bridge Rectifiers

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT (Kg)
SMA	-T	1,500	6,000	---	---	178	390*205*310	48,000	8.40
SMA	-W	5,000	10,000	---	---	330	360*355*360	80,000	14.20

Reel Taping Specifications For Surface Mount DEVICES-Flat Melf (SMA/SMB/SMC)



Note:

- 1.Devices are packed in accordance with EIA standard RS-481-A and specification given above.
- 2.Available on 7 inch (1500 ct.) or 13 inch (5000 ct.) diameter reels.

ITEM	SYMBOL	DO214AC (SMA) mm(inch)	DO214AA (SMB) mm(inch)	DO214AB (SMC) mm(inch)
Carrier width	A	2.6 0.15 (0.102 0.006)	3.65 0.1 (0.144 0.004)	6.0 0.1 (0.236 0.004)
Carrier length	B	5.15 0.15 (0.203 0.006)	5.69 0.1 (0.224 0.004)	8.30 0.1 (0.327 0.004)
Carrier depth	C	2.3 0.15 (0.091 0.006)	2.67 0.1 (0.105 0.004)	2.5 0.1 (0.098 0.004)
Sprocket hole	d	1.5 0.1 (0.059 0.004)	1.5 0.1 (0.059 0.004)	1.5 0.1 (0.059 0.004)
Reel outside diameter	D	178 2.0 (7.0 0.079)	178 2.0 (7.0 0.079)	178 2.0 (7.0 0.079)
Reel inner diameter	D1	50 Min.	50 Min.	50 Min.
Feed hole diameter	D2	13 0.5 (0.512 0.020)	13 0.5 (0.512 0.020)	13 0.5 (0.512 0.020)
Strocket hole position	E	1.5 0.1 (0.059 0.004)	1.5 0.1 (0.059 0.004)	1.5 0.1 (0.059 0.004)
Punch hole position	F	5.65 0.05 (0.222 0.002)	5.65 0.05 (0.222 0.002)	7.65 0.05 (0.301 0.002)
Punch hole pitch	P	4.0 0.1 (0.157 0.004)	8.0 0.1 (0.315 0.004)	8.0 0.1 (0.315 0.004)
Sprocket hole pitch	P0	4.0 0.1 (0.157 0.004)	4.0 0.1 (0.157 0.004)	4.0 0.1 (0.157 0.004)
Embossment center	P1	2.0 0.1 (0.079 0.004)	2.0 0.1 (0.079 0.004)	4.0 0.1 (0.157 0.004)
Total tape thickness	T	0.30 0.05 (0.012 0.002)	0.6 Max.	0.6 Max.
Tape width	W	12.0 0.2 (0.472 0.008)	12.0 0.2 (0.472 0.008)	16.0 0.2 (0.630 0.008)
Reel width	W1	16.8 2.0 (0.661 0.079)	16.8 2.0 (0.661 0.079)	24.0 2.0 (0.945 0.079)