



## FT4045-P180

Preliminary

DIODE

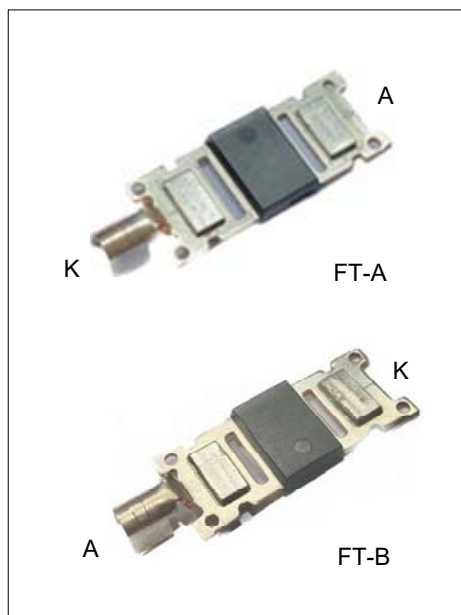
### SCHOTTKY BYPASS DIODE MODULE

#### ■ FEATURES

- \* High frequency operation
- \* Low forward voltage drop
- \* High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- \* Guard ring for enhanced ruggedness and long term reliability

#### ■ SYMBOL

FT-A	FT-B
A —▶— K	K —◀— A



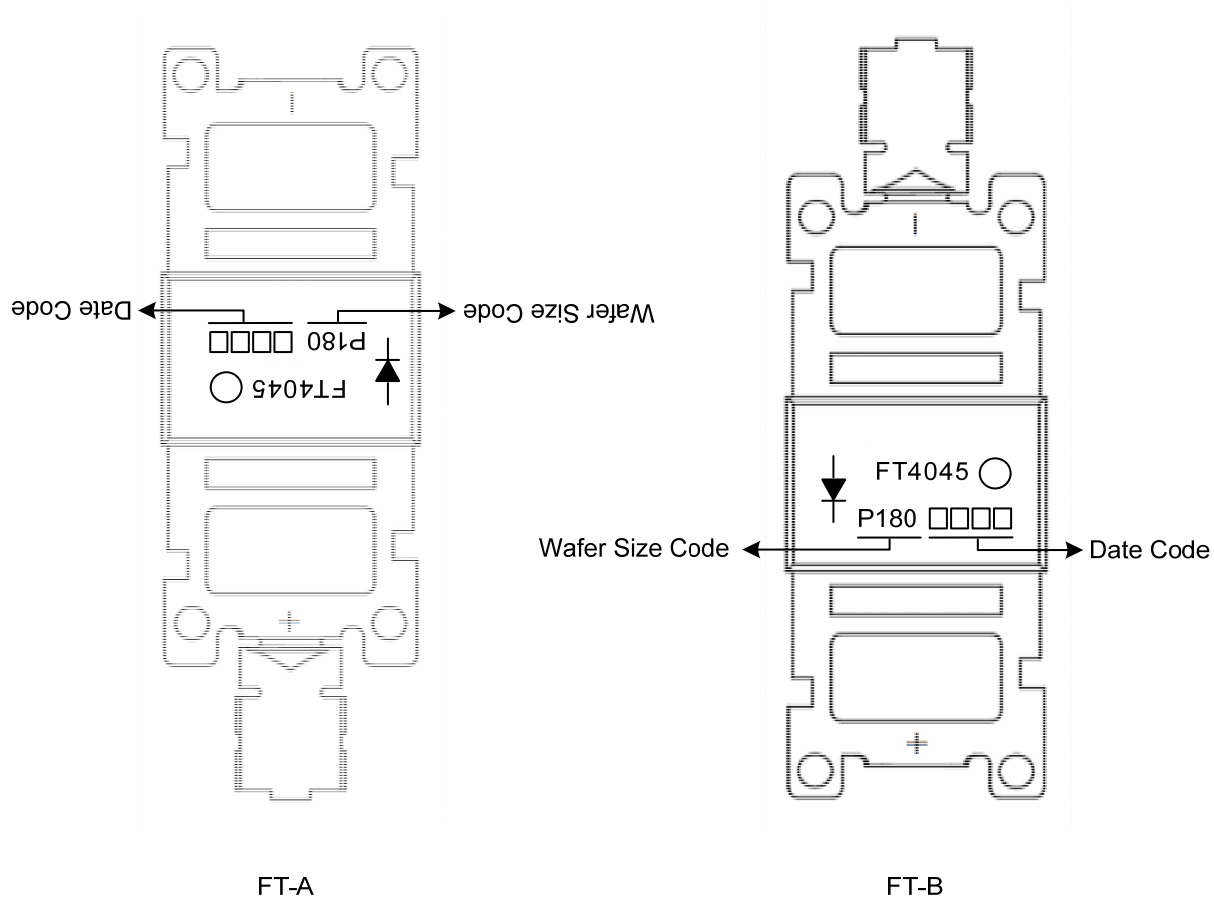
#### ■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
FT4045L-P180-FTA-T	FT4045G-P180-FTA-T	FT-A	Tube
FT4045L-P180-FTB-T	FT4045G-P180-FTB-T	FT-B	Tube

Note: Pin Assignment: A: Anode K: Cathode

FT4045G-P180-FTA-T	
(1) Packing Type	(1) T: Tube
(2) Package Type	(2) FTA: FT-A, FTB: FT-B
(3) Wafer Size Code	(3) P150D
(4) Green Package	(4) G: Halogen Free and Lead Free, L: Lead Free

### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	$V_{RM}$	45	V
Working Peak Reverse Voltage	$V_{RWM}$	45	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	45	V
RMS Voltage	$V_{RMS}$	31.5	V
Average Rectified Output Current @ 60Hz Half Sine-Wave, R-Load	$I_O$	40	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	$I_{FSM}$	300	A
Operating Junction Temperature (In DC Forward Mode Operation Without Reverse Bias) ( $t \leq 1\text{h}$ )	$T_J$	-55 ~ +200	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.  
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL CHARACTERISTICS (PER LEG)

PARAMETER	SYMBOL	RATINGS	UNIT
Typical Thermal Resistance	$\theta_{JC}$	0.7	$^{\circ}\text{C/W}$

■ ELECTRICAL CHARACTERISTICS (PER LEG) ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=0.50\text{mA}$	45			V
Maximum Instantaneous Forward Voltage Drop per Diode	$V_F$	$I_F=40\text{A}$ , $T_C=25^{\circ}\text{C}$		0.53	0.55	V
		$I_F=40\text{A}$ , $T_C=125^{\circ}\text{C}$			0.51	V
Reverse Leakage Current @ $V_R$	$I_R$	$V_R=40\text{V}$ , $T_C=25^{\circ}\text{C}$			100	$\mu\text{A}$
		$V_R=40\text{V}$ , $T_C=125^{\circ}\text{C}$			12	mA

Note: Pulse Test: Pulse width  $\leq 300\mu\text{s}$ , Duty cycle  $\leq 2\%$ .

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