



MK4045TS

Schottky Bypass Diode Module

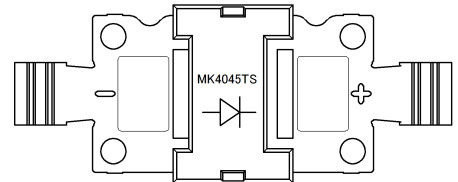
Features

- Trench MOS Barrier Schottky technology
- Low stored charge Majority Carrier Conduction
- Ultra low forward voltage drop
- Low leakage current
- Low power loss and high efficiency
- High forward surge capacity

Application

- Schottky rectifier design for high frequency switched mode power supplies, such as adaptors and on board DC/DC converters.

JK-09E



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Major Rating and Characteristics(per diode) (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	32	V
Max. DC blocking voltage	V_{DC}	45	V
Operating junction temperature range (AC model)	T_{op}	-55~150	°C
Junction temperature in DC forward current without reverse bias, $t \leq 1h$	T_J	-55~200	°C
Maximum DC Reverse Current at Rated DC Bolcking Voltage	I_R	50 50	uA mA
Maximum average forward current 50 % duty cycle, rectangular waveform	$I_F(AV)$	40	A
Surge non repetitive forward current	I_{FSM}	420	



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THERMAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$, unless otherwise note)

PARAMETER	SYMBOL	MK3045TS	UNIT
Maximum; thermal; resistance; per;dioxide	$R_{\theta JC}$	1.0	$^\circ\text{C/W}$

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

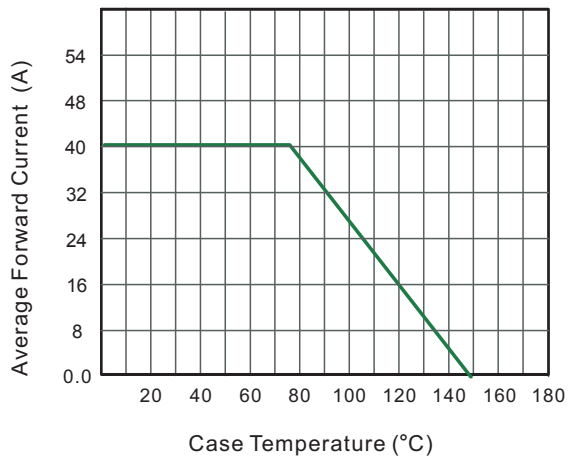


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

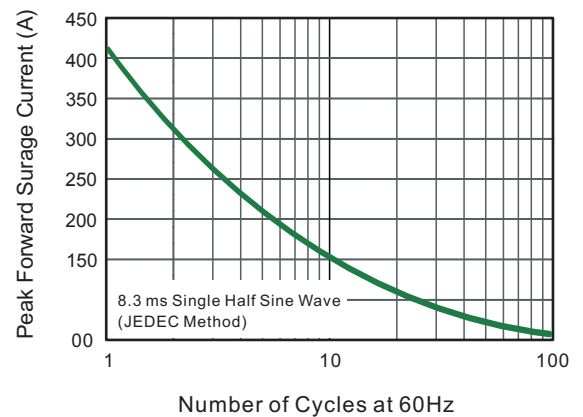


FIG.3-TYPICAL FORWARD CHARACTERISTICS

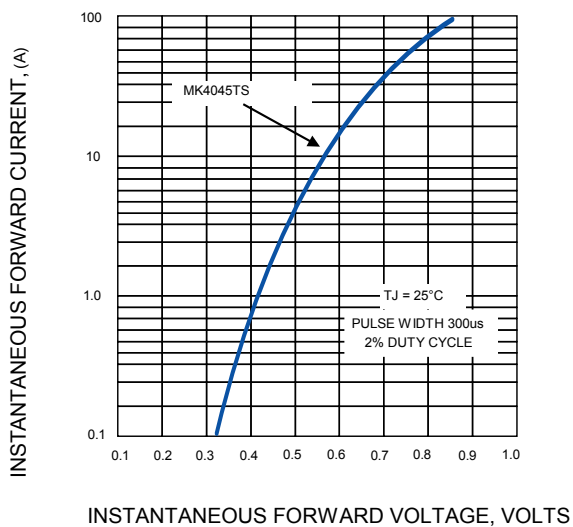
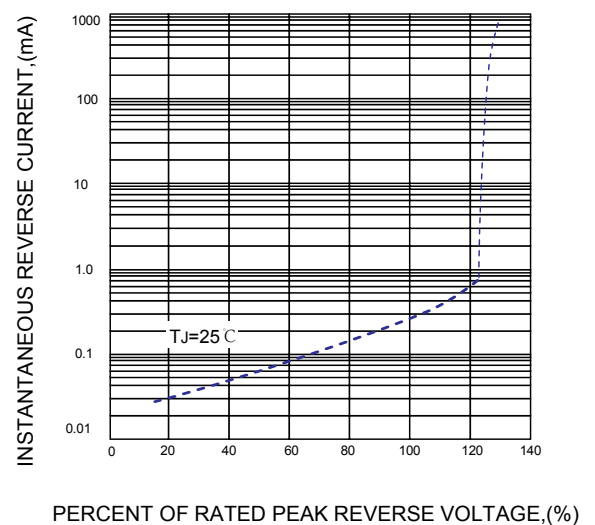


FIG.4-TYPICAL REVER CHARACTERISTICS





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■Outline Dimensions (in millimeters)

