

S20LC40UV

Fast Recovery Diodes

400V, 20A

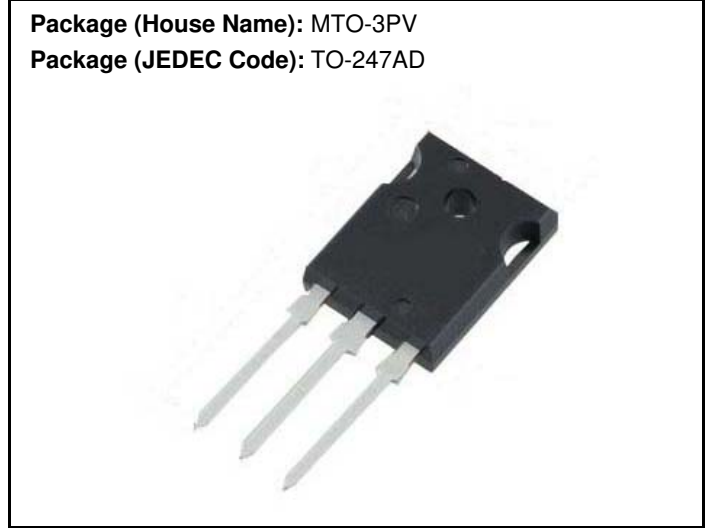
Feature

- High Recovery Speed
- Available for automotive use
- Pb free terminal
- RoHS:Yes

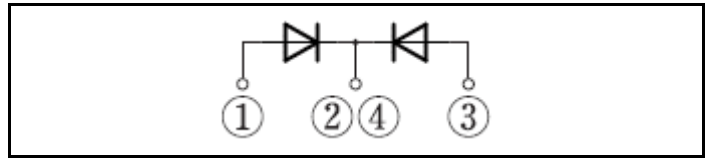
OUTLINE

Package (House Name): MTO-3PV

Package (JEDEC Code): TO-247AD



Equivalent circuit



Absolute Maximum Ratings (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-55 to 150	°C
Junction temperature	T _j		150	°C
Repetitive peak reverse voltage	V _{RRM}		400	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Rating for each diode I _{F(AV)} /2, T _c =123°C	20	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, T _j =25°C	200	A
Surge forward current	I _{FSM1}	t _p =1ms, Non-repetitive, T _j =25°C	450	A
Mounting torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

※ :See the original Specifications

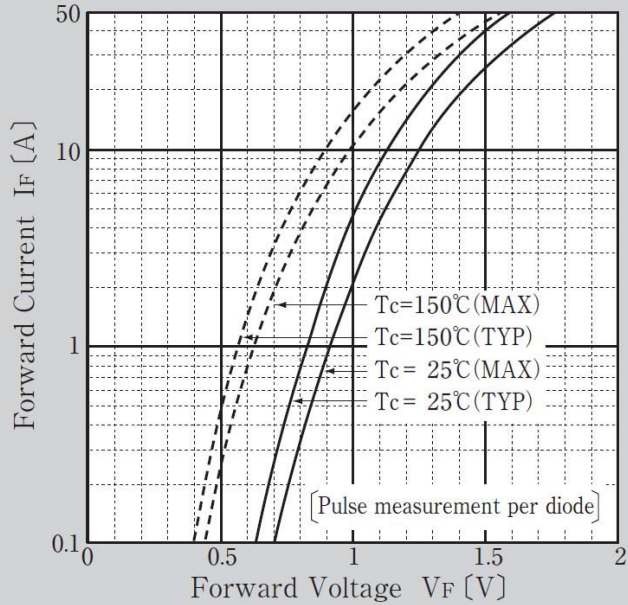
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	I _F =10A, Pulse measurement, Per diode		1.07	1.25	V
Reverse current	I _R	V _R =400V, Pulse measurement, Per diode			10	μA
Reverse recovery time	t _{rr}	I _F =0.5A, I _R =1A, 0.25I _R , Per Diode			30	ns
Total capacitance	C _t	f=1MHz, V _R =10V, Per diode		65		pF
Thermal resistance	R _{th(j-c)}	Junction to case, With heatsink			1	°C/W

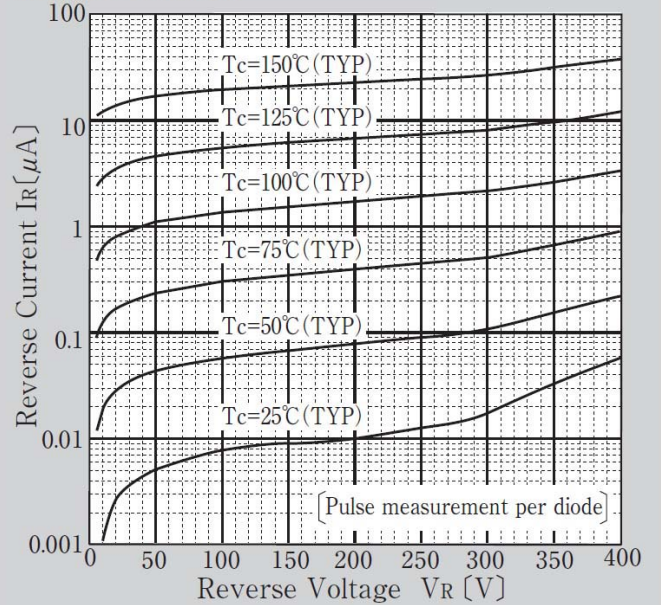
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

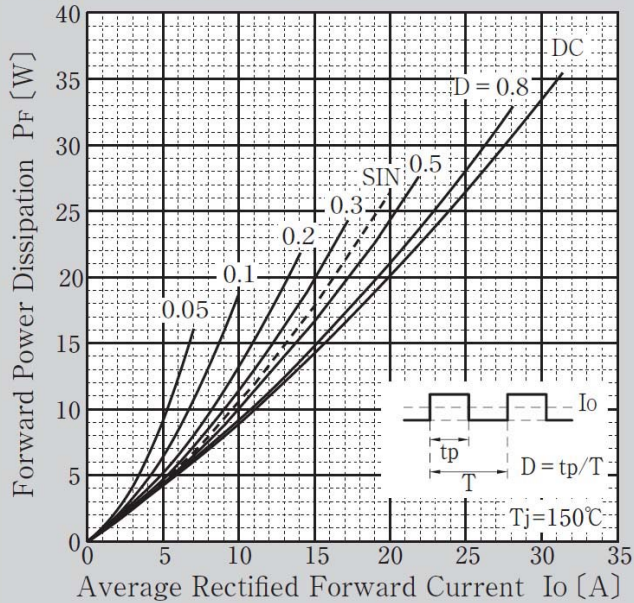
Forward Voltage



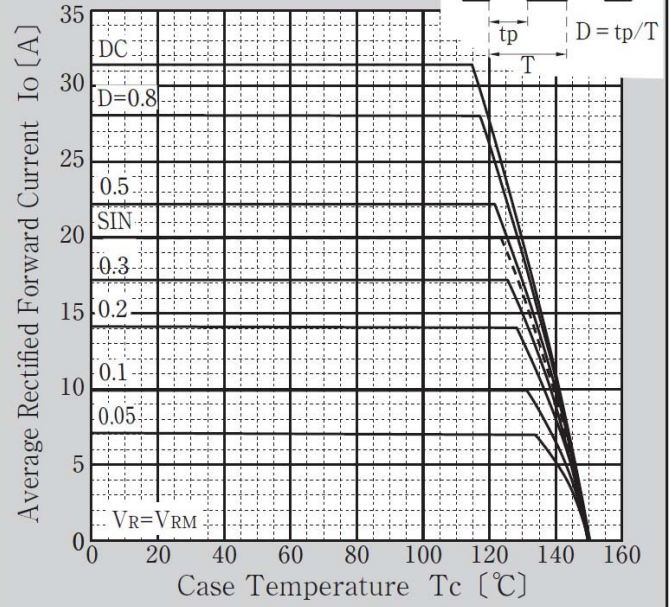
Reverse Current



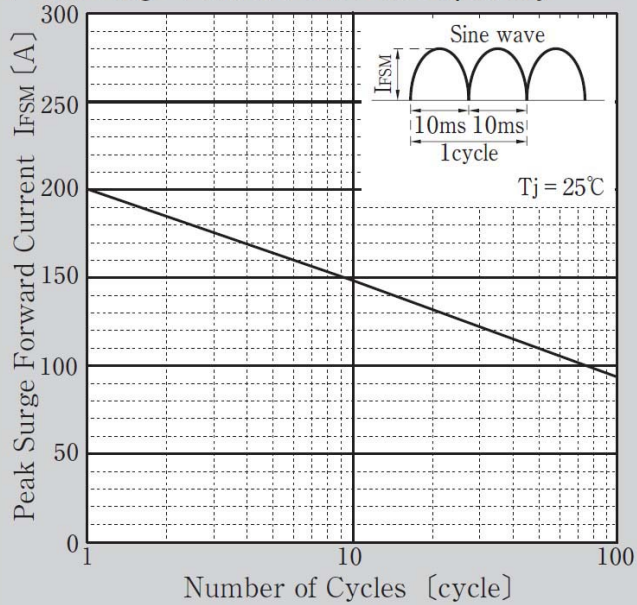
Forward Power Dissipation



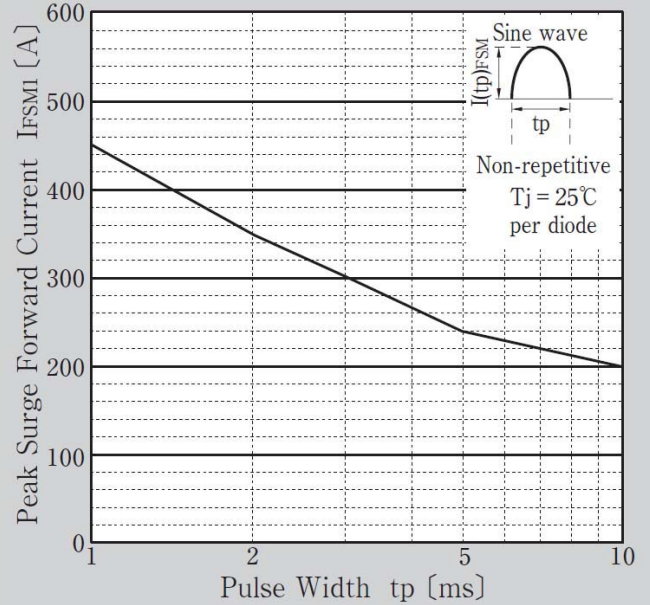
Derating Curve



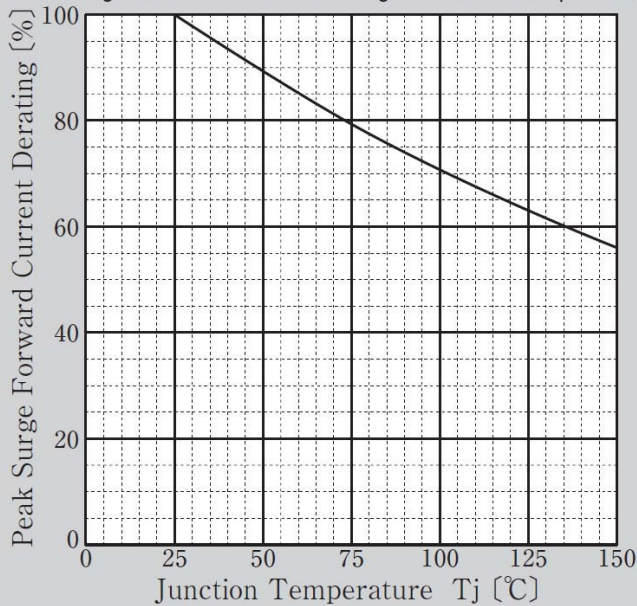
Peak Surge Forward Current Capability



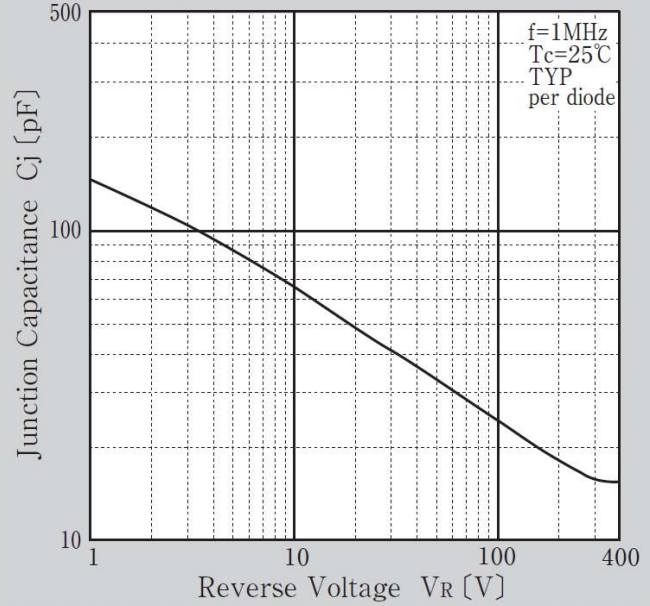
Peak Surge Forward Current Capability



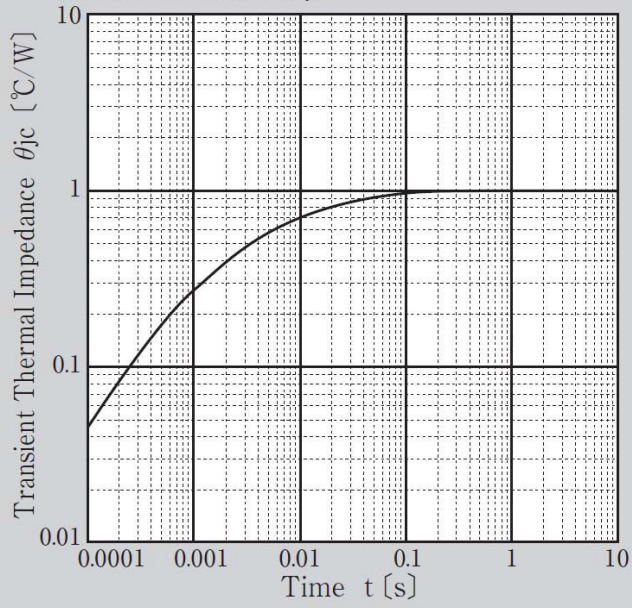
Peak Surge Forward Current Derating vs Junction Temperature



Junction Capacitance

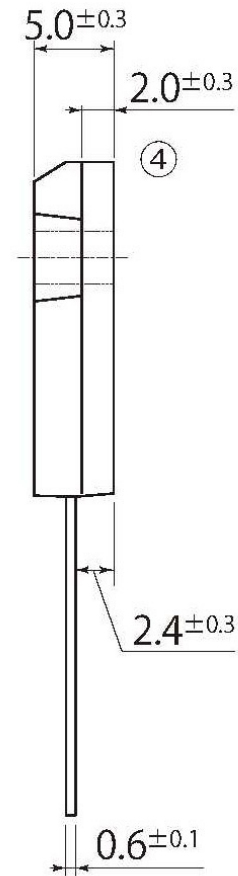
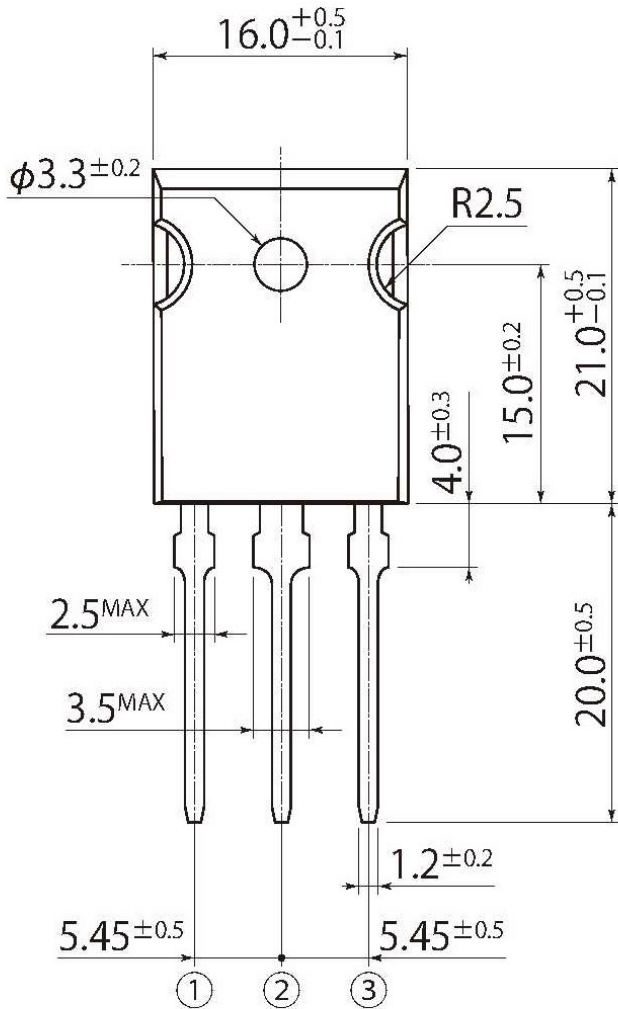


Transient Thermal Impedance



K7

JEDEC Code	TO-247AD
JEITA Code	—
House Name	MTO-3PV



Notes

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