ShinDengen

S20K60T

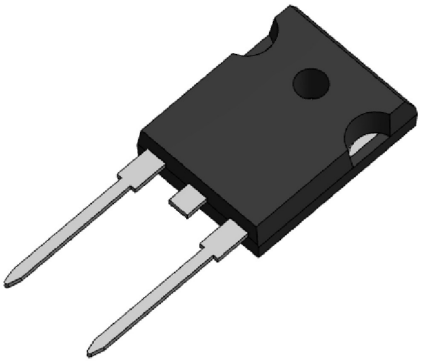
Fast Recovery Diodes
600V, 20A

Feature

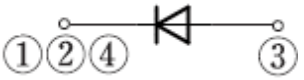
- High Voltage
- Low Noise
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): MTO-3PT
Package (JEDEC Code): TO-247AD



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperrature	Tstg		-55 to 150	°C
Junction temperature	Tj		-55 to 150	°C
Repetitive peak reverse voltage	V_{RRM}		600	V
Average forward current	I_F(AV)	50Hz sine wave, Resistance load, With heatsink, Tc=121°C	20	A
Surge forward current	I_{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	300	A
Surge forward current	I_{FSM1}	tp=1ms, Sine wave, Non-repetitive, Peak value, Tj=25°C	890	A
Mounting torque	TOR	(Recommended torque：0.5N･m)	0.8	N･m

※ ：See the original Specifications

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

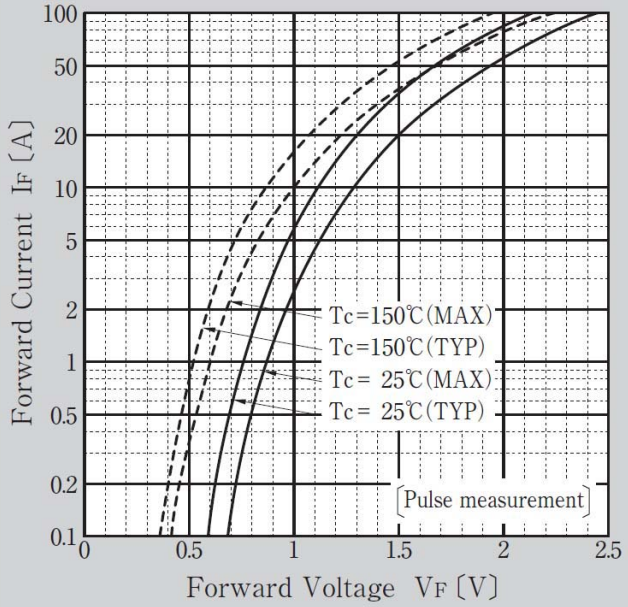
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V_F	IF=20A, Pulse measurement		1.3	1.5	V
Forward voltage	V_F	IF=2A, Pulse measurement		0.83		V
Reverse current	I_R	VR=600V, Pulse measurement			10	μA
Reverse recovery time	trr	IF=0.5A, IR=1.0A, 0.25IR			95	ns
Reverse recovery time	trr	IF=1.0A, VR=30V, di/dt=-50A/μs, 0.25IR			72	ns
Reverse recovery time	trr	IF=1.0A, VR=420V, di/dt=-50A/μs, 0.25IR			84	ns
Total capacitance	Ct	f=1MHz, VR=10V		105		pF
Thermal resistance	Rth(j-c)	Junction to case, With heatsink			0.8	°C/W

※ :See the original Specifications

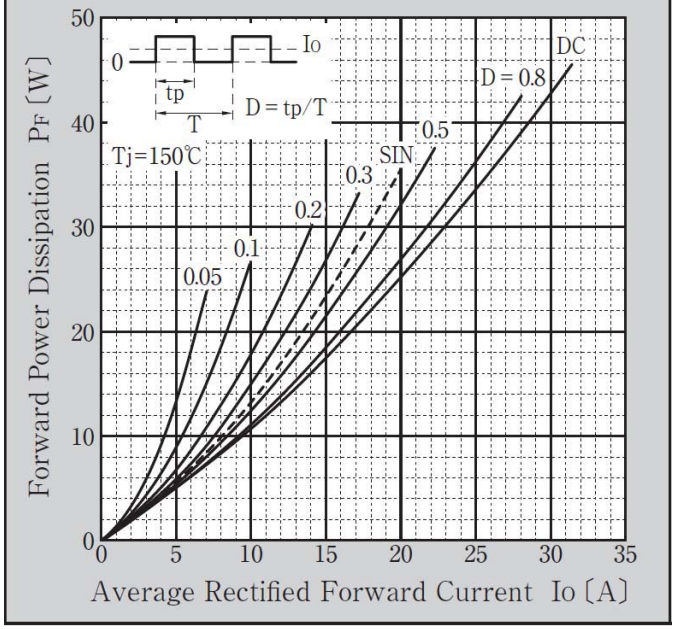
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CHARACTERISTIC DIAGRAMS

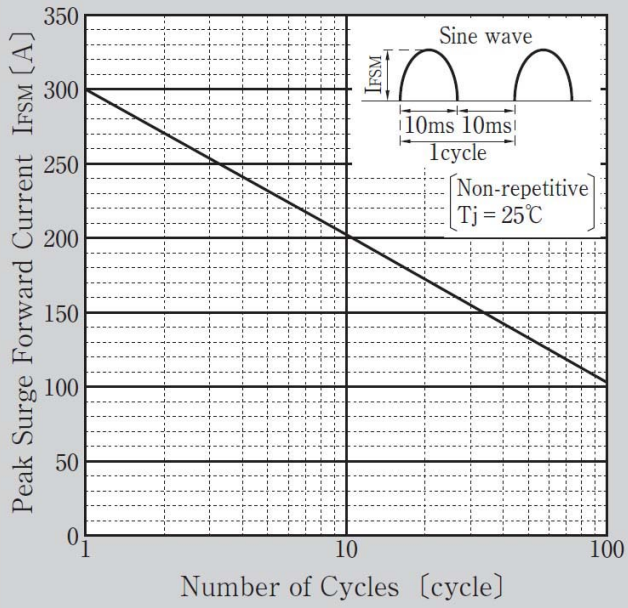
Forward Voltage



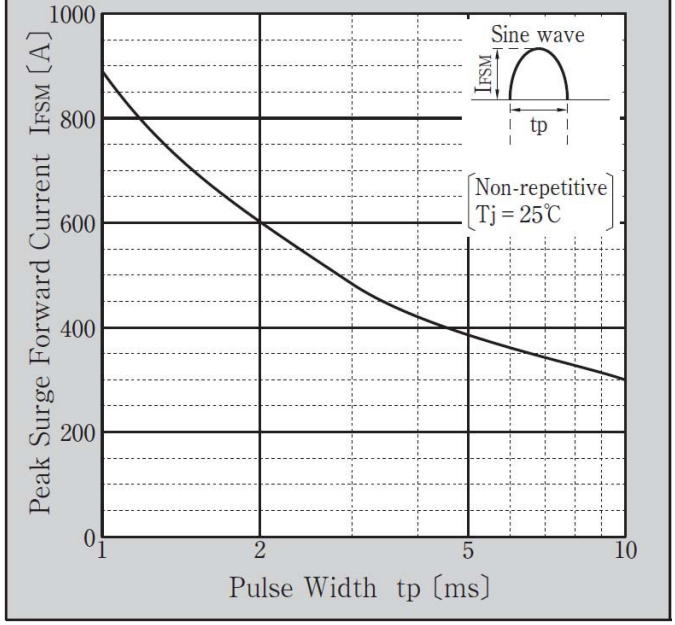
Forward Power Dissipation



Peak Surge Forward Current Capability

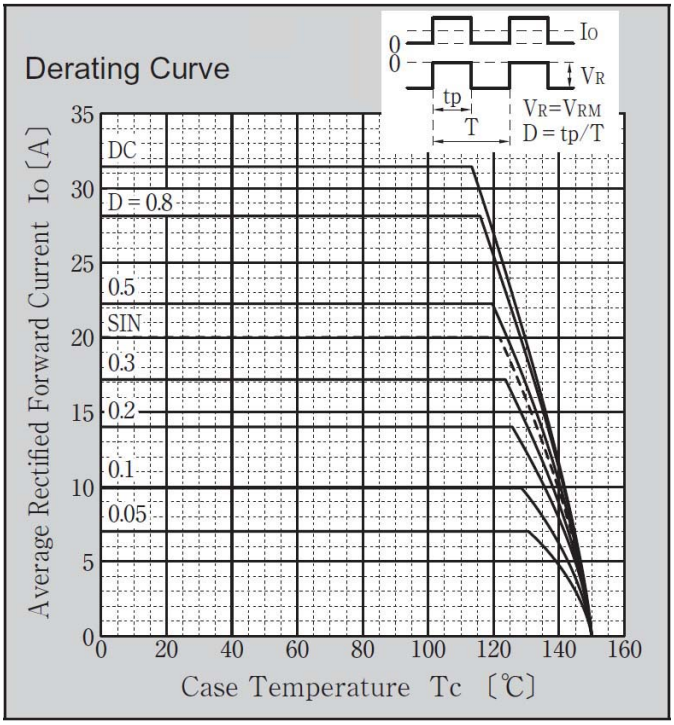


Peak Surge Forward Current Capability

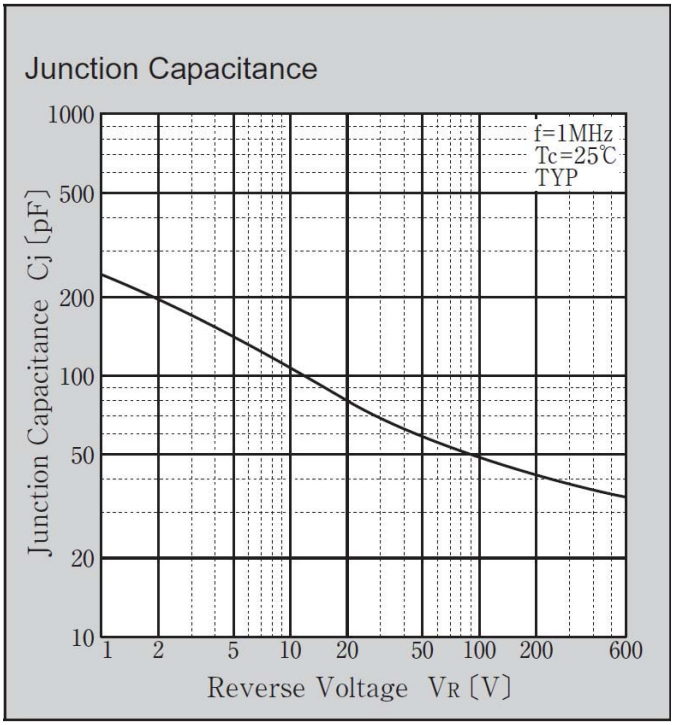


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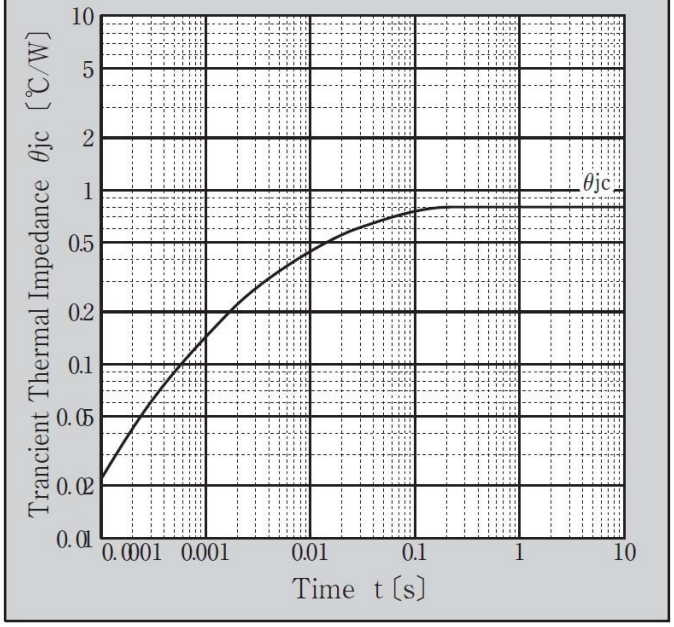
Derating Curve



Junction Capacitance



Transient Thermal Impedance



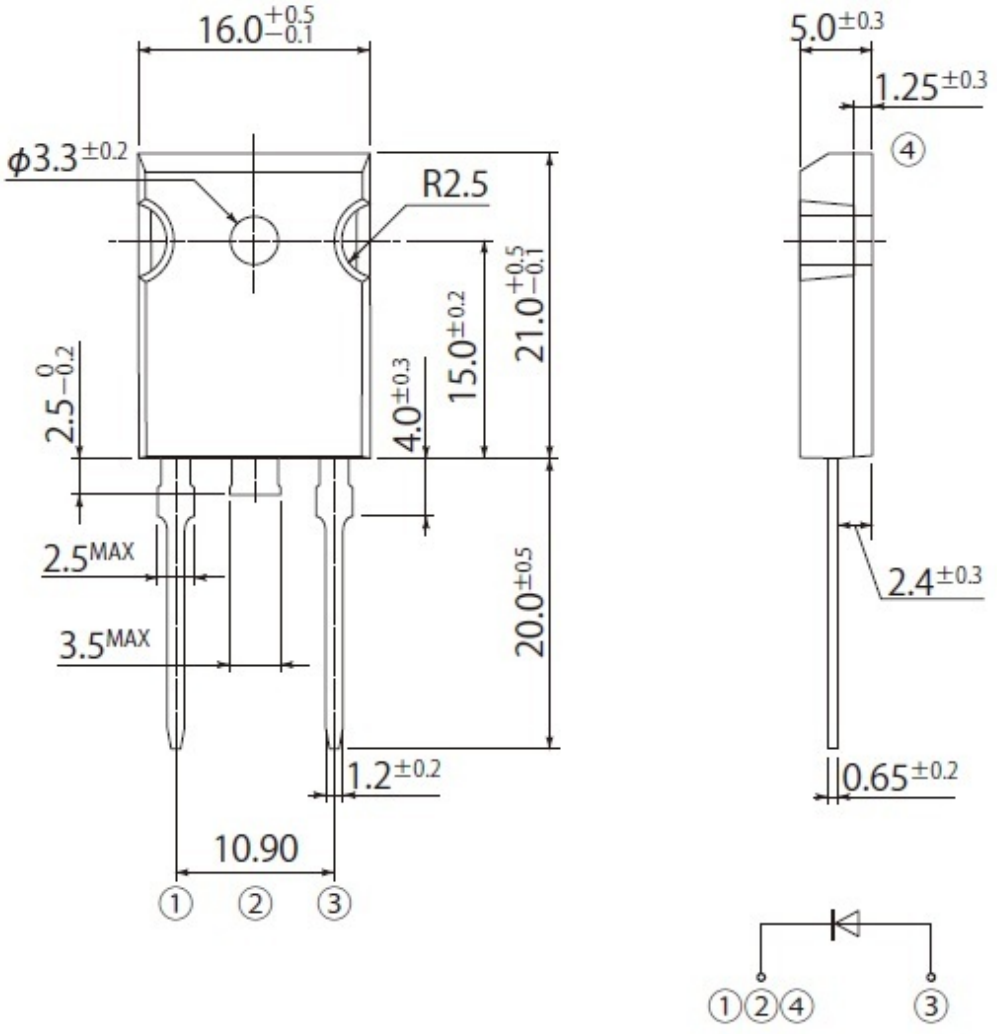
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Outline Dimensions

unit:mm

K2

JEDEC Code	TO-247AD
JEITA Code	–
House Name	MTO-3PT(2pin)



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- If you wish to use any such products, please be sure to refer to the specifications.

U182-1(2026.09)

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   【Special applications】
   Transportation equipment (vehicles, ships, etc.), trunk-line communication equipment, traffic signal control systems, anti-disaster/crime systems, safety equipment, medical equipment, etc.
   【Specific applications】
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