

S20LC60USV

Fast Recovery Diodes

600V, 20A

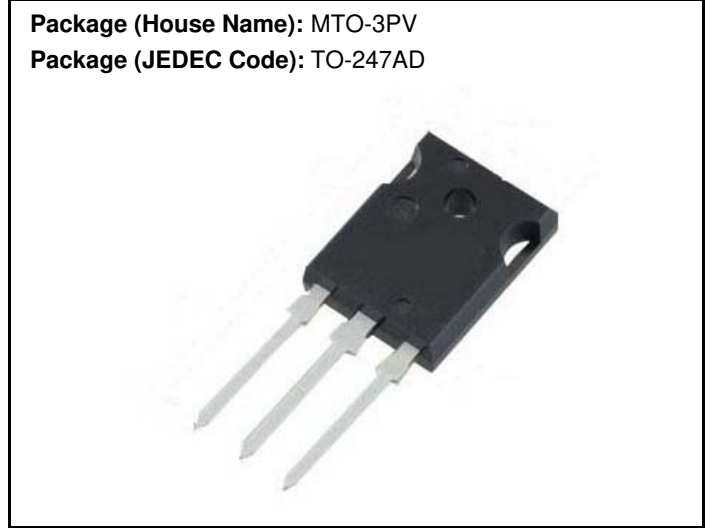
Feature

- High Voltage
- Low Noise
- Available for automotive use
- Pb free terminal
- RoHS:Yes

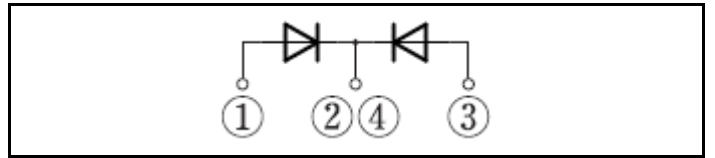
OUTLINE

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}		600	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, Rating for each diode I _{F(AV)} /2, T _c =65°C	20	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Rating of per diode, T _j =25°C	60	A
Current squared time	I ² t	1ms ≤ t _p < 10ms, T _j =25°C, Rating of per diode	18	A ² s
Mounting torque	TOR	(Recommended torque : 0.5N·m)	0.8	N·m

※ :See the original Specifications

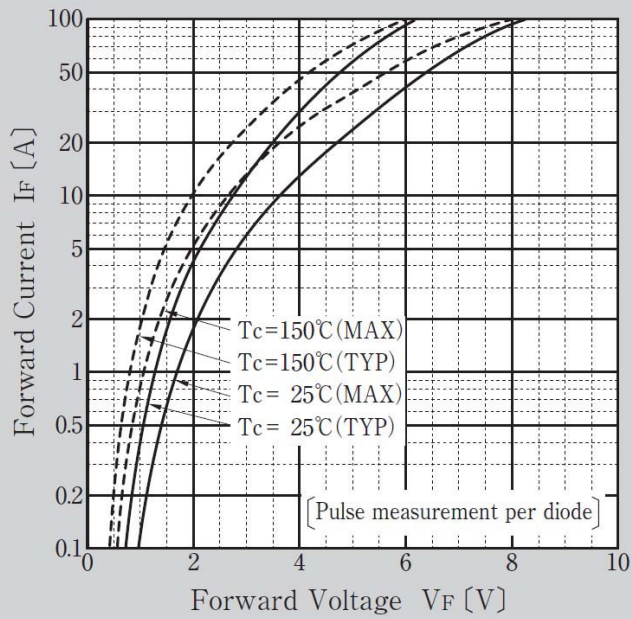
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	IF=10A, Pulse measurement, Per diode			3.6	V
Reverse current	I _R	VR=600V, Pulse measurement, Per diode			50	μA
Reverse recovery time	trr	IF=0.5A, IR=1A (Recovery point 90%), Per Diode			25	ns
Total capacitance	Ct	f=1MHz, VR=10V, Per diode		24		pF
Thermal resistance	Rth(j-c)	Junction to case			1	°C/W

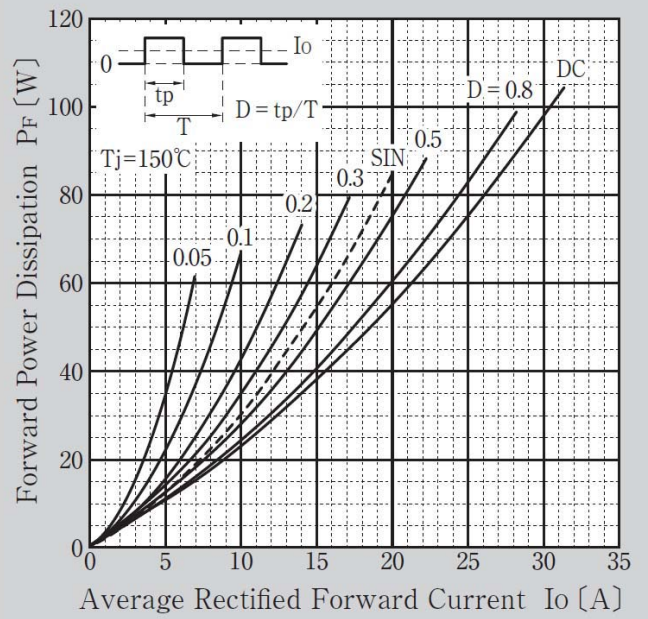
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

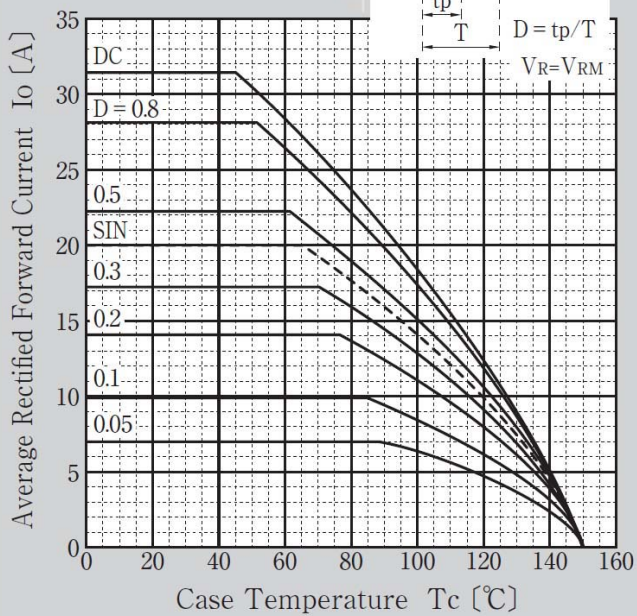
Forward Voltage



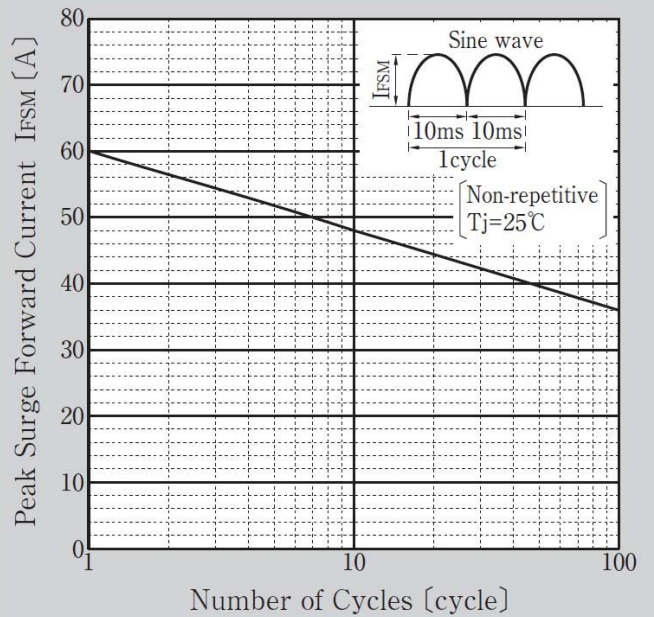
Forward Power Dissipation



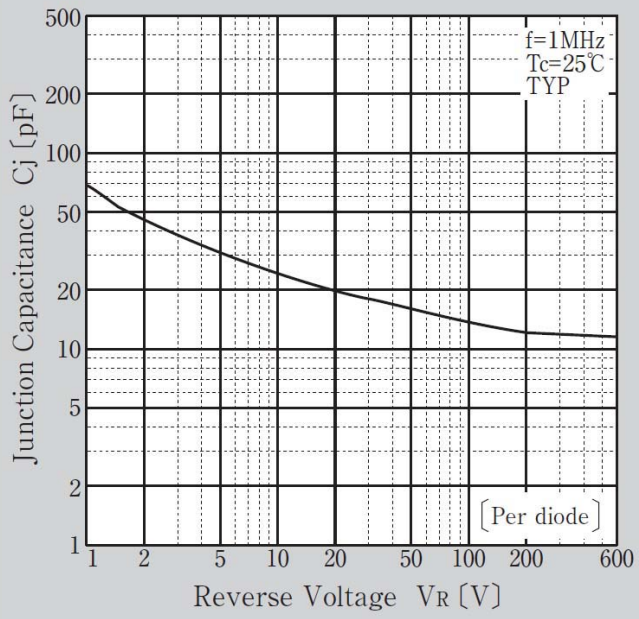
Derating Curve



Peak Surge Forward Current Capability

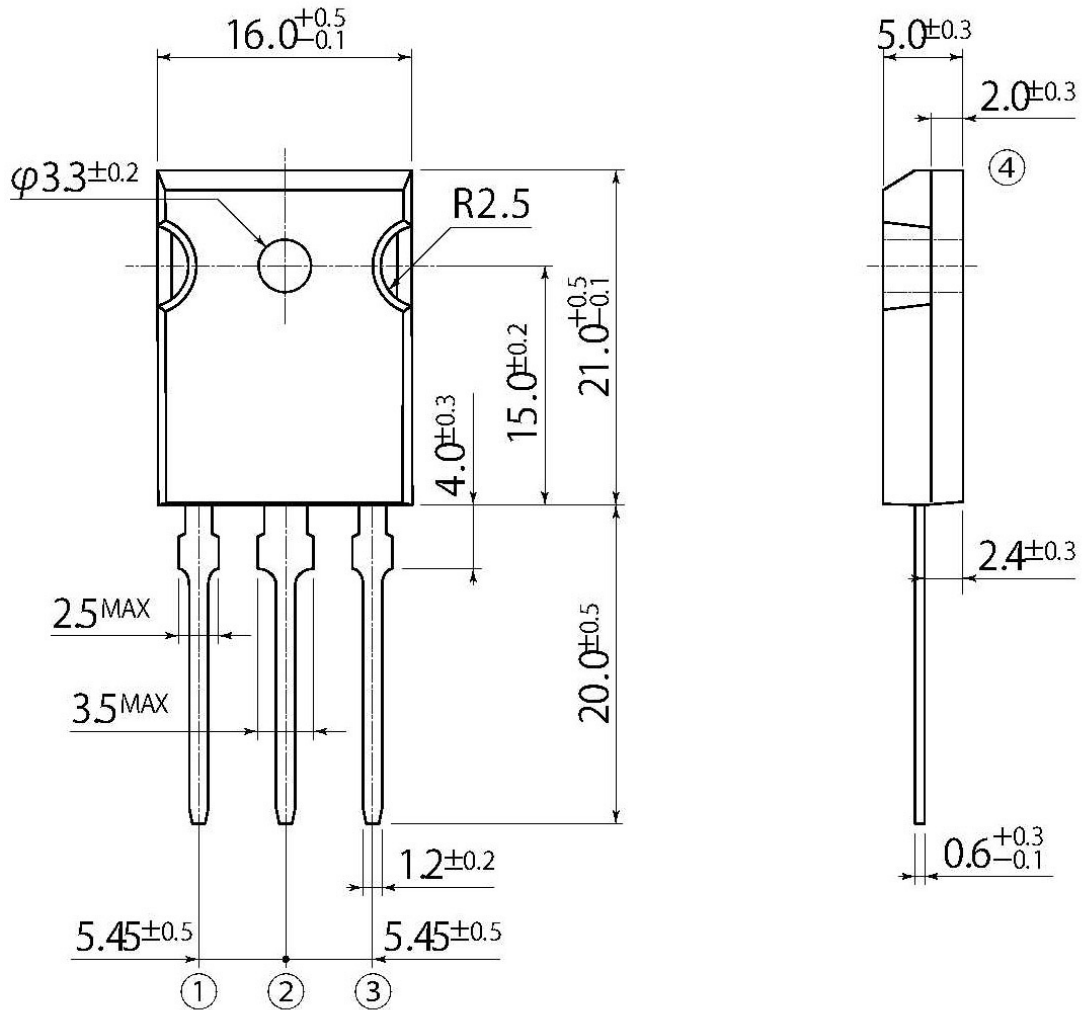


Junction Capacitance



K7

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



Notes

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