

S30V80V

General Rectifying Diodes

800V, 30A

Feature

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

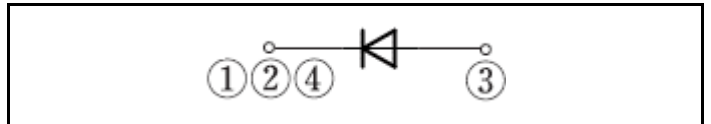
OUTLINE

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}		800	V
Average forward current	I _{F(AV)}	50Hz sine wave, Resistance load, With heatsink T _c =131°C	30	A
Surge forward current	I _{FSM}	50Hz sine wave, Non-repetitive 1 cycle peak value, T _j =25°C	450	A
Surge forward current	I _{FSM1}	t _p =1ms, T _j =25°C, Non-repetitive	1423	A
Current squared time	I ² t	1ms ≤ t _p < 10ms, Rating of per diode	1012.5	A ² s
Mounting torque	TOR	(Recommended torque:0.5N·m)	0.8	N·m

* :See the original Specifications

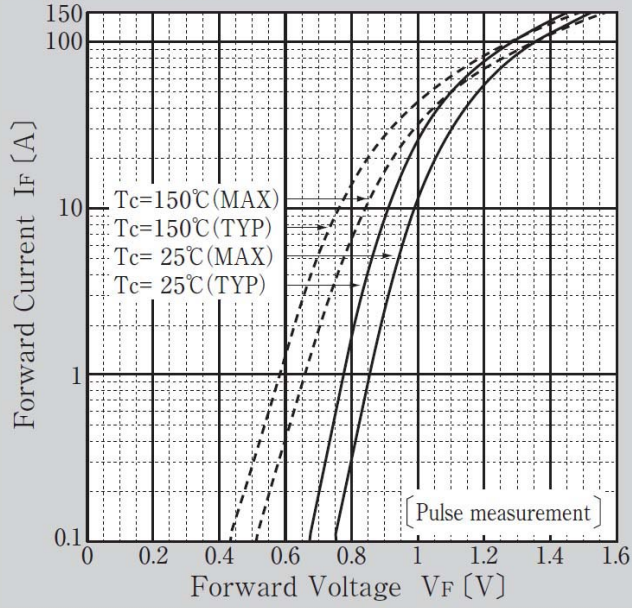
Electrical Characteristics (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V _F	I _F =30A, Pulse measurement			1.1	V
Reverse current	I _R	V _R =800V, Pulse measurement			10	μA
Thermal resistance	R _{th(j-c)}	Junction to case, With heatsink			0.5	°C/W

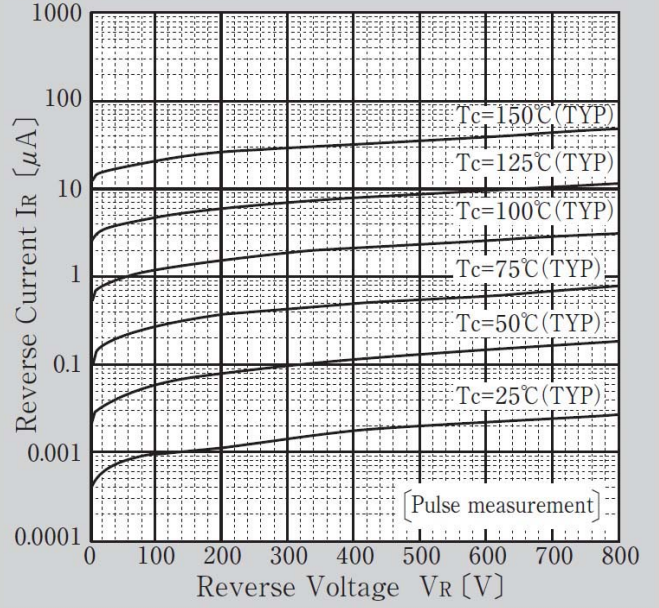
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

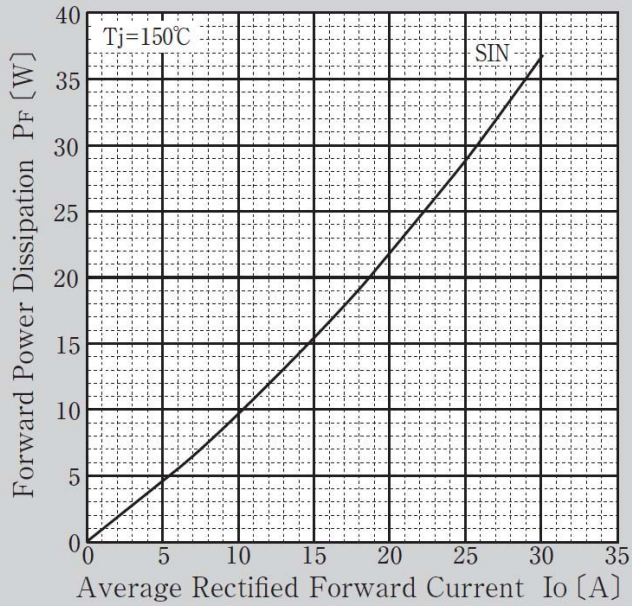
Forward Voltage



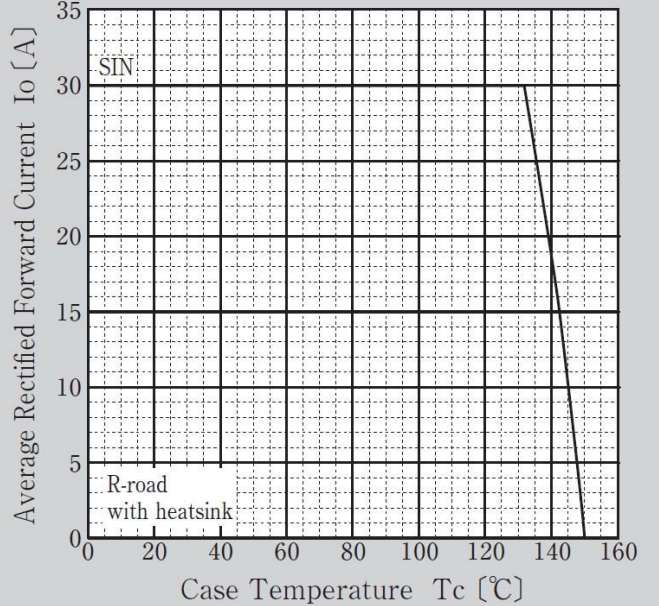
Reverse Current



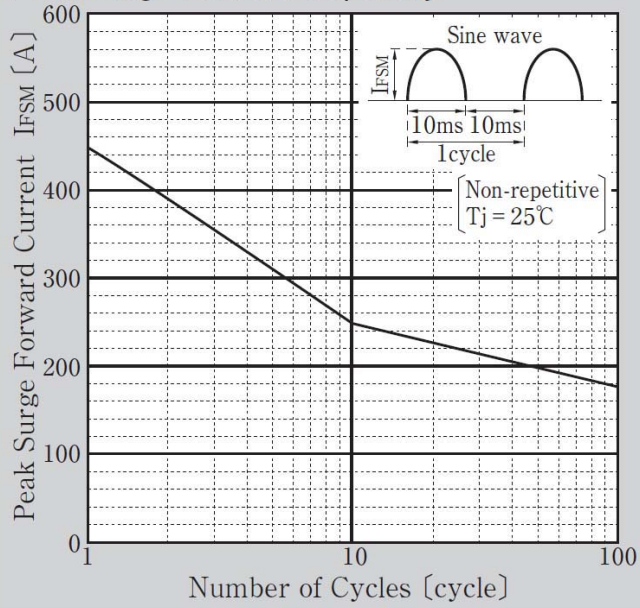
Forward Power Dissipation



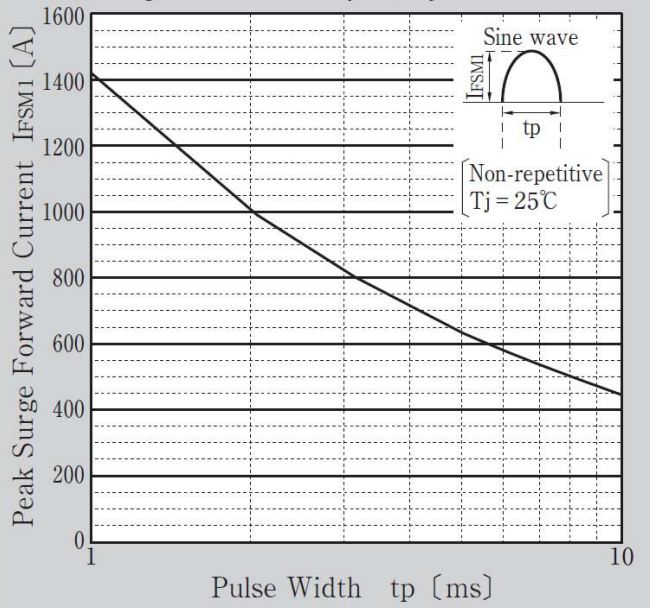
Derating Curve



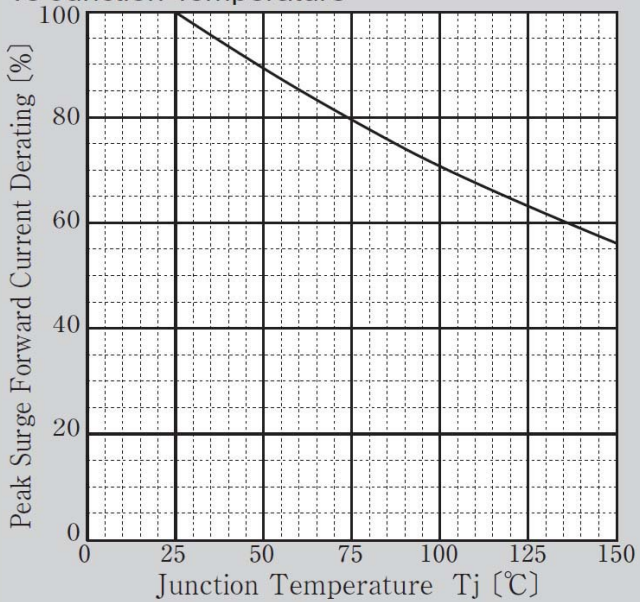
Peak Surge Forward Capability



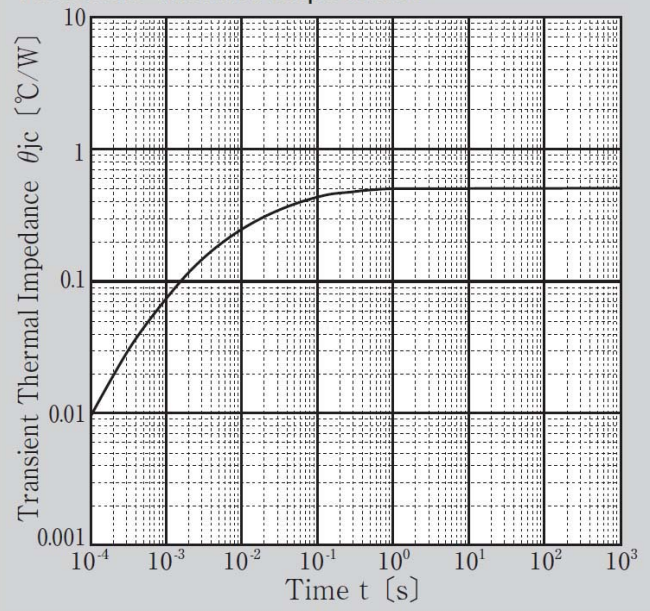
Peak Surge Forward Capability



Peak Surge Forward Current Derating vs Junction Temperature

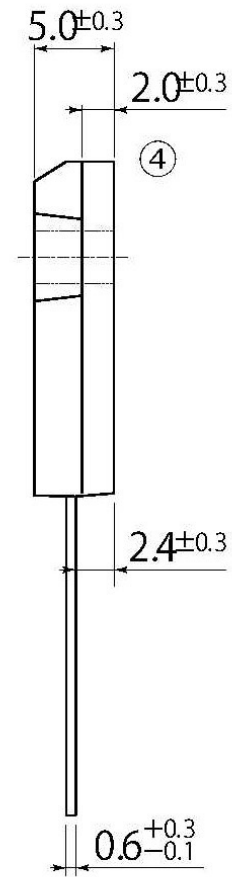
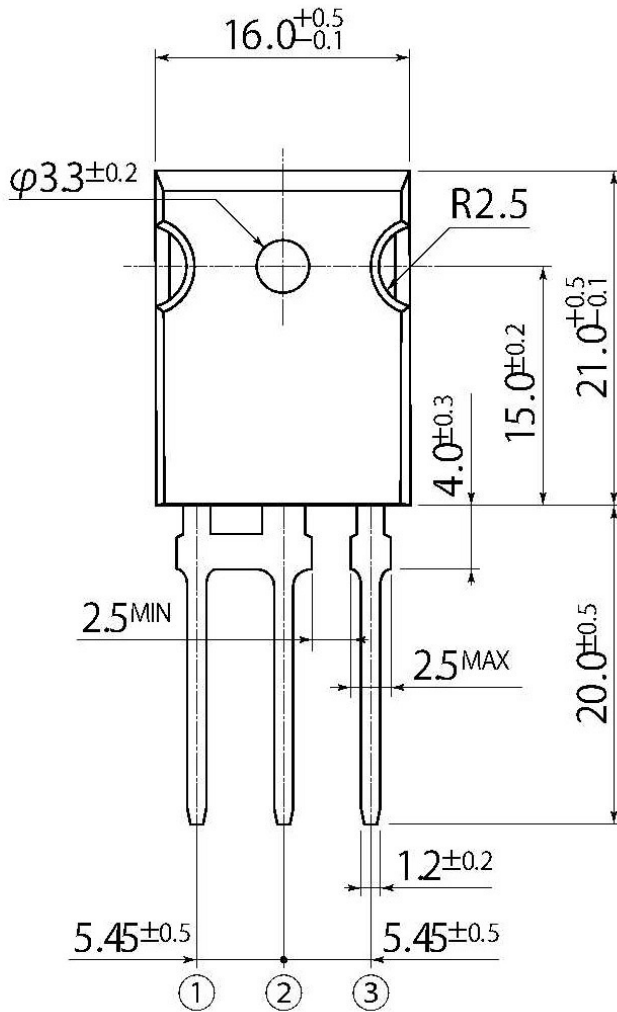


Transient Thermal Impedance



K6

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



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