

20.0A 45V Schottky Barrier Diode

Product Character

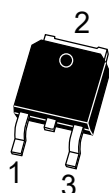
- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.
- RoHs Product.

Primary Use

- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

Summarize

- SRT2045CS Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

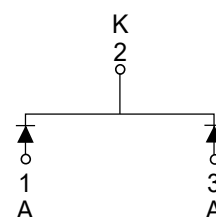


Package:TO-252-2L

SRT2045CS

SRT2045CS-HF

HF=Halogen Free



Absolute Maximum Ratings

Item		Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage		V_{RRM}	45	V
Average Rectified Forward Current(Rated VR-20Khz Square Wave)-50% duty cycle	Per Device	I_{FAV}	20	A
	Per Diode		10	
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	Per Diode	I_{FSM}	180	A
Operating Junction Temperature		T_J	-40~150	°C
Storage Temperature		T_{STG}	-40~150	°C
Typical Thermal Resistance(per leg)	Package=TO-252-2L	$R_{\theta JC}$	3	°C/W

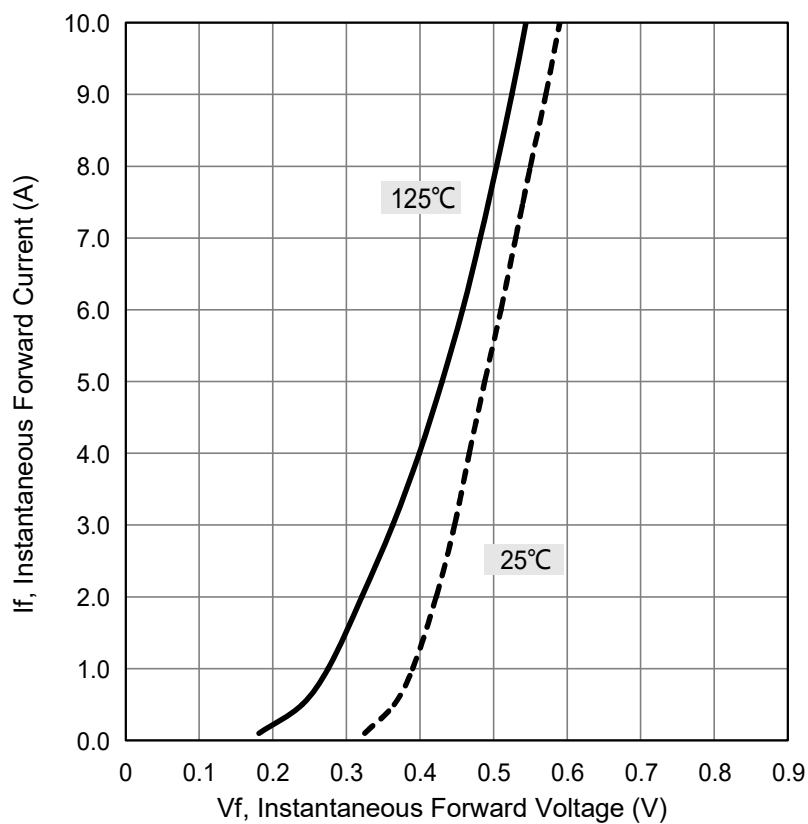
Electricity Character Per Diode($T_J=25^{\circ}\text{C}$ unless otherwise specified)

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
V_B	$T_J = 25^{\circ}\text{C}$	$I_R = 1\text{mA}$	45	—	—	V
I_R	$T_J = 25^{\circ}\text{C}$	$V_R = 45\text{V}$	—	—	0.05	mA
	$T_J = 125^{\circ}\text{C}$	$V_R = 45\text{V}$	—	—	15.00	mA
V_F	$T_J = 25^{\circ}\text{C}$	$I_F = 10\text{A}$	—	0.59	0.65	V
	$T_J = 125^{\circ}\text{C}$	$I_F = 10\text{A}$	—	—	0.6	V

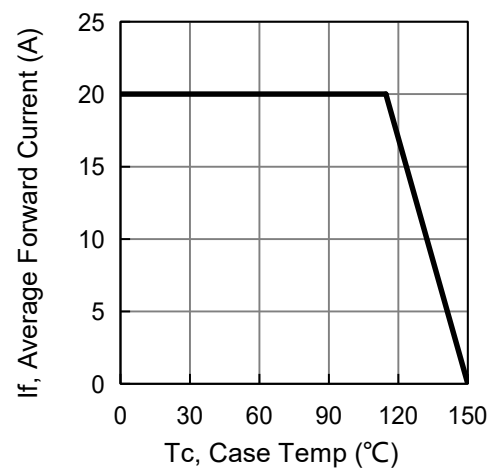


Characteristic Curves

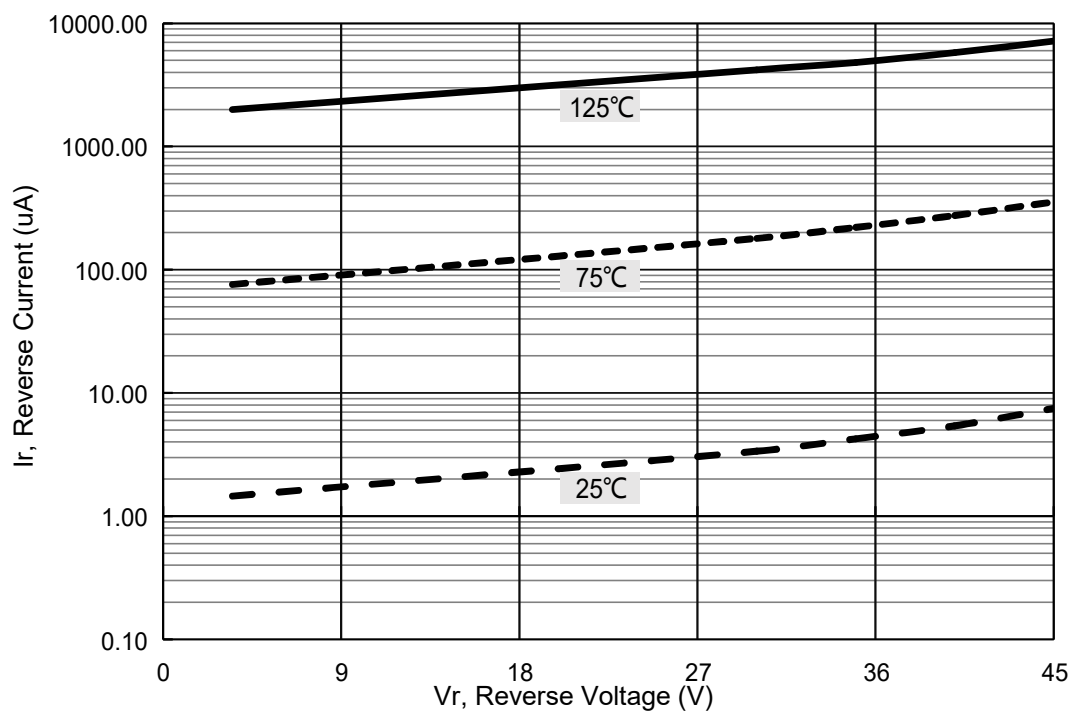
The forward voltage and forward current curve



Current derating curve, per element



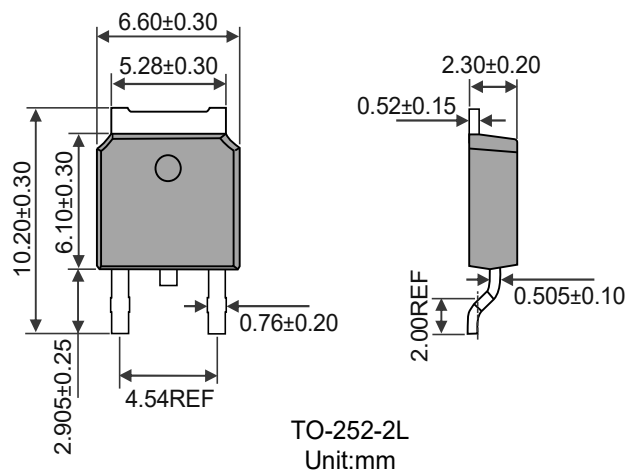
The reverse leak current and the reverse voltage (single-device) curve.



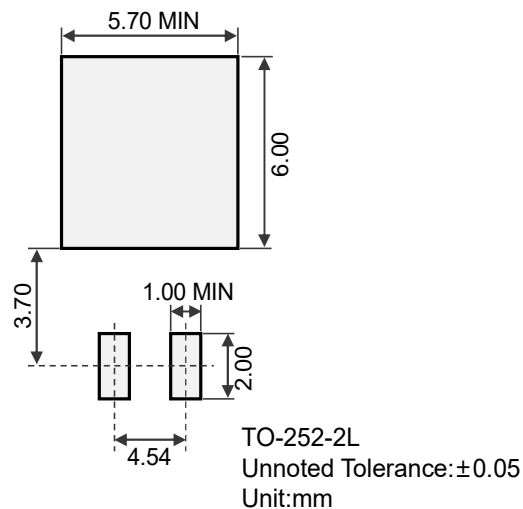


Package Outline Dimensions & Suggested Solder Pad Layout

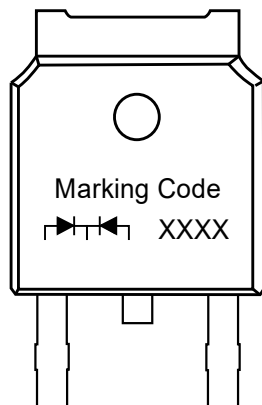
Package Outline Dimensions



Suggested Solder Pad Layout



Marking Information



“Marking Code”= The Following
“XXXX”= Date Code Marking

Marking Code	Part Number
SRT2045CS	SRT2045CS
	SRT2045CS-HF

Packing Information

Packaging	Part Number	Quantity(pcs)	Size(mm)
Tube	Tube	80	L540×W20×H5
	Inner Box	4000	L570×W115×H55
	Outer Box	20000	L595×W320×H135
Reel	Reel	3000	Φ330×THK17
	Inner Box	3000	L350×W340×H25
	Outer Box	30000	L355×W300×H360