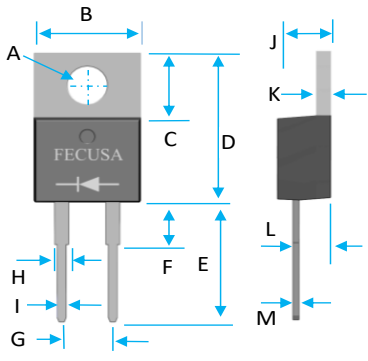


6A 650V SILICON CARBIDE SCHOTTKY BARRIER RECTIFIER

 <table border="1" data-bbox="462 483 730 798"> <thead> <tr> <th rowspan="2">Dim</th> <th colspan="2">Value In [mm]</th> </tr> <tr> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0.147[3.73]</td> <td>0.156[3.96]</td> </tr> <tr> <td>B</td> <td>0.387[9.83]</td> <td>0.419[10.64]</td> </tr> <tr> <td>C</td> <td>0.226[5.74]</td> <td>0.269[6.83]</td> </tr> <tr> <td>D</td> <td>0.548[13.92]</td> <td>0.624[15.85]</td> </tr> <tr> <td>E</td> <td>0.500[12.70]</td> <td>---</td> </tr> <tr> <td>F</td> <td>---</td> <td>0.177[4.50]</td> </tr> <tr> <td>G</td> <td>0.195[4.95]</td> <td>0.205[5.21]</td> </tr> <tr> <td>H</td> <td>0.042[1.07]</td> <td>0.058[1.47]</td> </tr> <tr> <td>I</td> <td>0.019[.48]</td> <td>0.038[.97]</td> </tr> <tr> <td>J</td> <td>0.163[4.14]</td> <td>0.196[4.98]</td> </tr> <tr> <td>K</td> <td>0.045[1.14]</td> <td>0.054[1.37]</td> </tr> <tr> <td>L</td> <td>0.098[2.49]</td> <td>0.114[2.90]</td> </tr> <tr> <td>M</td> <td>---</td> <td>0.025[.64]</td> </tr> </tbody> </table>	Dim	Value In [mm]		Min.	Max.	A	0.147[3.73]	0.156[3.96]	B	0.387[9.83]	0.419[10.64]	C	0.226[5.74]	0.269[6.83]	D	0.548[13.92]	0.624[15.85]	E	0.500[12.70]	---	F	---	0.177[4.50]	G	0.195[4.95]	0.205[5.21]	H	0.042[1.07]	0.058[1.47]	I	0.019[.48]	0.038[.97]	J	0.163[4.14]	0.196[4.98]	K	0.045[1.14]	0.054[1.37]	L	0.098[2.49]	0.114[2.90]	M	---	0.025[.64]	<h3>PRODUCT FEATURES</h3> <ol style="list-style-type: none"> 1. HIGH SURGE CURRENT CAPABILITY 2. POSITIVE TEMPERATURE COEFFICIENT ON VF 3. LOW CONDUCTION LOSS 4. ZERO REVERSE RECOVERY 5. HIGH JUNCTION TEMPERATURE 175 °C 6. RoHS COMPLIANT AND HALOGEN FREE 7. GREEN MOLDING COMPOUND AS PER IEC 61250 8. CASE: MOLDED PLASTIC TO-220AC 9. SOLDERABILITY PER MIL-STD-750, METHOD 2026 10. APPROX. WEIGHT: 0.067 OUNCES, 1.89 GRAMS 11. DIMENSIONS IN INCHES AND (MILLIMETERS) 12. POLARITY: AS MARKED
Dim		Value In [mm]																																											
	Min.	Max.																																											
A	0.147[3.73]	0.156[3.96]																																											
B	0.387[9.83]	0.419[10.64]																																											
C	0.226[5.74]	0.269[6.83]																																											
D	0.548[13.92]	0.624[15.85]																																											
E	0.500[12.70]	---																																											
F	---	0.177[4.50]																																											
G	0.195[4.95]	0.205[5.21]																																											
H	0.042[1.07]	0.058[1.47]																																											
I	0.019[.48]	0.038[.97]																																											
J	0.163[4.14]	0.196[4.98]																																											
K	0.045[1.14]	0.054[1.37]																																											
L	0.098[2.49]	0.114[2.90]																																											
M	---	0.025[.64]																																											

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (TC = 25°C UNLESS OTHERWISE SPECIFIED)

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNITS
MAX. REPETITIVE PK REV VOLTAGE		VRRM	650	V
MAX RMS VOLTAGE VRMS		VRMS	460	V
MAX. DC BLOCKING VOLTAGE		VDC	650	V
CONTINUOUS FORWARD CURRENT	TC=145°C	IF	6	A
REPETITIVE PEAK SURGE CURRENT	TC=25°C , TP =10mS ,HALF SINE WAVE, D=0.1	IFRM	28	A
	TC=125°C , TP =10mS ,HALF SINE WAVE, D=0.2		24	A
PEAK FORWARD SURGE CURRENT	TC=25°C , TP =10mS,HALF SINE WAVE	IFSM	28	A
	TC=125°C , TP =10mS,HALF SINE WAVE		24	A
	TP =10uS, PULSE		320	A
MAXIMUM POWER DISSIPATION		Ptotal	57.7	W

ELECTRICAL CHARACTERISTICS (TC=25°C UNLESS OTHERWISE SPECIFIED)

PARAMETER	TEST CONDITIONS	SYMBOL	Low Limit	LIMIT	High Limit	UNIT
FWD VOLTAGE	IF= 6 A, TJ=25°C	VF		1.5	1.7	V
	IF= 6 A, TJ=175°C			1.8		
REV LEAKAGE CURRENT	VR = 650 V, TJ = 25°C	IR		2	50	uA
	VR = 650 V, TJ = 175°C			25		
CAPACITIVE CHARGE	IF = 6 A, VR =400V	QC		11.3		nC



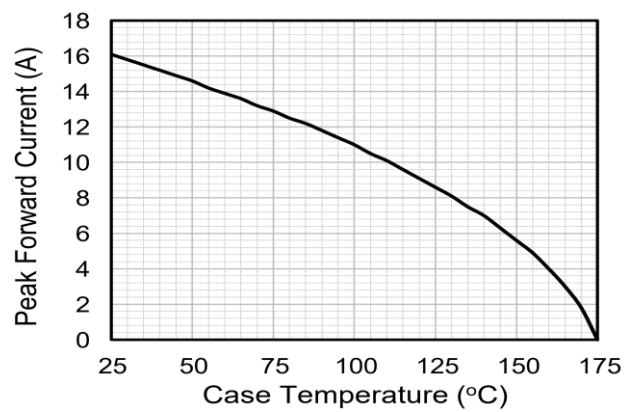
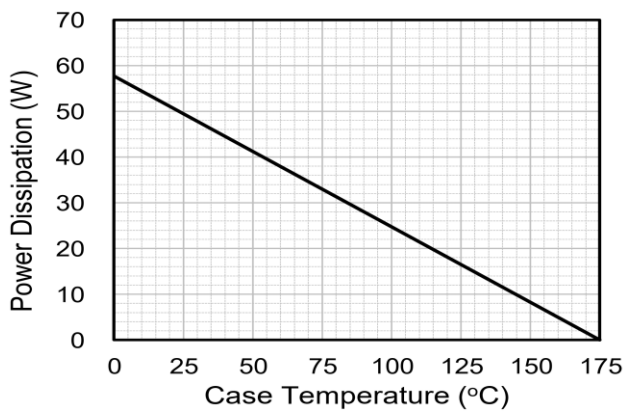
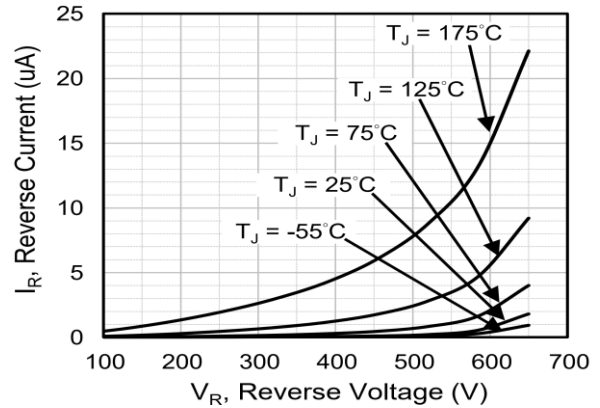
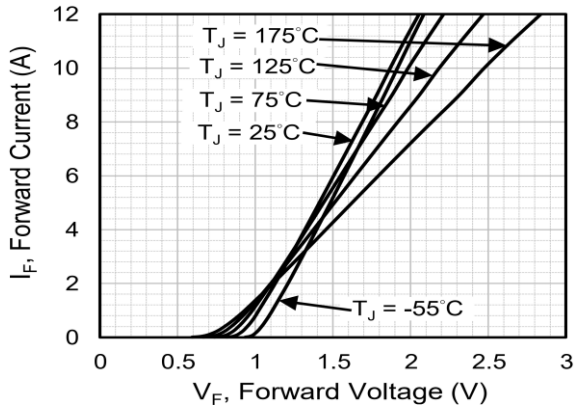
FTSC6R0651AA SPECIFICATIONS

Rev. 02

CAPACITANCE	VR =1V, f=1MHz	C	228	pF
	VR =200V, f=1MHz		18.9	
	VR =400V, f=1MHz		13.3	
Capacitance Stored Energy	VR =400V	Ec	1.59	uJ
THERMAL RESISTANCE		RθJC	2.6	°C/W

1. STORAGE AND OPERATING TEMPERATURE RANGE: -55 °C TO +175 °C
2. STORAGE CONDITIONS RANGE (ORIGINAL PACKAGING): -10 °C TO +40 °C & 30% TO 70% RH.

RATING AND CHARACTERISTIC CURVES





FTSC6R0651AA SPECIFICATIONS

Rev. 02

