



Silicon Carbide Schottky Diode

Features

■Electrical Characteristics (Per Leg)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Typ.	Max.
Forward voltage drop	V_F	V	$I_F=40A, T_J=25^{\circ}C$	1.42	1.58
			$I_F=40A, T_J=175^{\circ}C$	2.02	-
Reverse leakage current	I_R	μA	$V_R=1200V, T_J=25^{\circ}C$	1	12
			$V_R=1200V, T_J=175^{\circ}C$	10	-
Total capacitive charge	Q_C	nC	$V_R=800V, T_J=25^{\circ}C, Q_C=\int_0^{V_R} C(V)dV$	211	-
Total capacitance	C	pF	$V_R=0V, f=1MHZ$	3010	-
			$V_R=400V, f=1MHZ$	198	-
			$V_R=800V, f=1MHZ$	155	-
Capacitance Stored Energy	E_C	μJ	$V_R=800V$	55	-

■Thermal Characteristics ($T_A=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Thermal resistance	$R_{\theta J-C}$	$^{\circ}C/W$	0.4 ⁽¹⁾ 0.2 ⁽²⁾

(1) Per Leg, (2) Per Device

■Typical Characteristics (Per Leg)

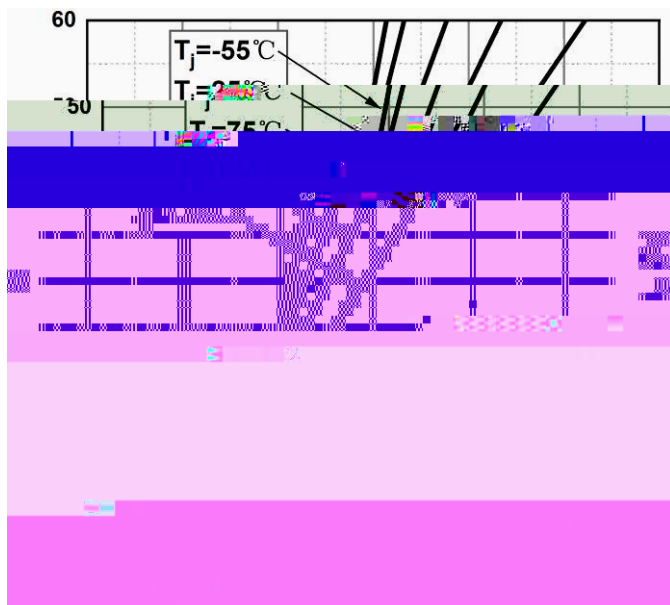


Figure 1. Forward Characteristics

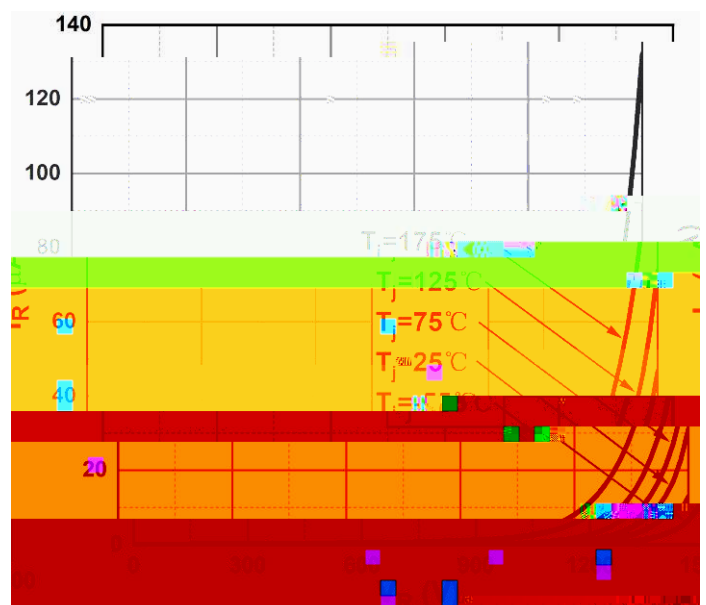


Figure 2. Reverse Characteristics

■ Typical Characteristics (Device)

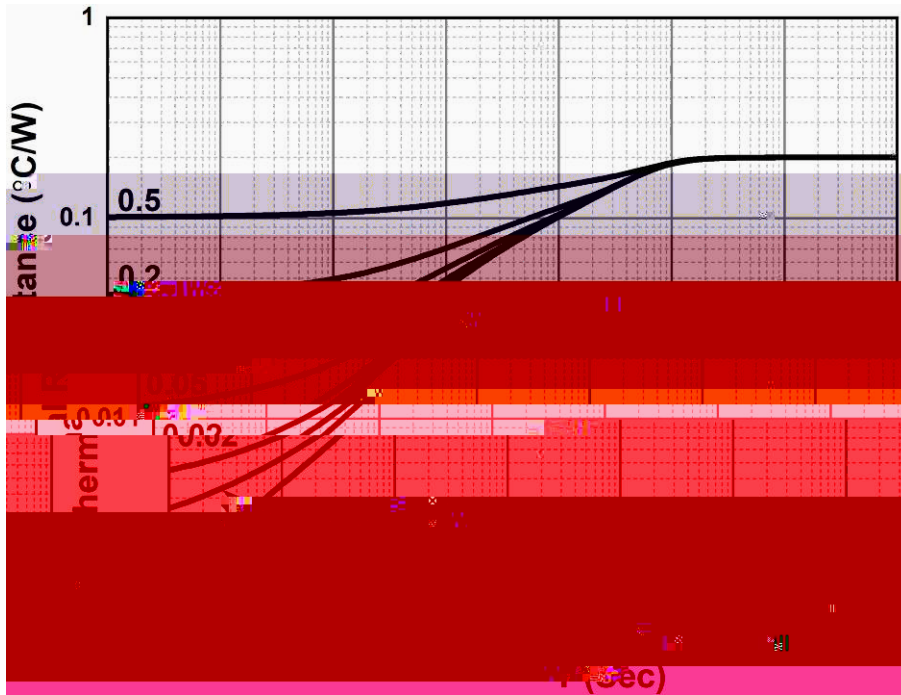


Figure 8. Transient Thermal Impedance

v2XWOLQH 'LPHQVLRQV

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