Si3457CDV vs. Si3457BDV

Description: **P-Channel, 30-V (D-S) MOSFET**
Package: **TSOP-6**
Pin Out: **Identical**

Part Number Replacements: Si3457CDV-T1-GE3 replaces Si3457BDV-T1-GE3
Si3457CDV-T1-E3 or Si3457CDV-T1-GE3 replaces Si3457BDV-T1-E3
Si3457CDV-T1-E3 or Si3457CDV-T1-GE3 replaces Si3457BDV-T1

ABSOLUTE MAXIMUM RATINGS T_A = 25 °C, unless otherwise noted					
PARAMETER		**SYMBOL**	**Si3457CDV**	**Si3457BDV**	**UNIT**
Drain-Source Voltage		V_{DS}	- 30	- 30	V
Gate-Source Voltage		V_{GS}	± 20	± 20	
Continuous Drain Current	T_A = 25 °C	I_D	- 4.1	- 5.0	A
	T_A = 70 °C		- 3.3	- 4.0	
Pulsed Drain Current		I_{DM}	- 20	- 20	
Continuous Source Current (MOSFET Diode Conduction)		I_S	- 1.67	- 1.7	
Power Dissipation	T_A = 25 °C	P_D	2.0	2.0	W
	T_A = 70 °C		1.3	1.3	
Operating Junction and Storage Temperature Range		T_J and T_{stg}	- 55 to 150	- 55 to 150	°C
Maximum Junction-to-Ambient		R_{thJA}	62.5	62.5	°C/W

SPECIFICATIONS T_J = 25 °C, unless otherwise noted									
			Si3457CDV			**Si3457BDV**			
PARAMETER		**SYMBOL**	**MIN.**	**TYP.**	**MAX.**	**MIN.**	**TYP.**	**MAX.**	**UNIT**
Static									
Gate-Threshold Voltage		$V_{GS(th)}$	- 1.0		- 3.0	- 1.0		- 3.0	V
Gate-Body Leakage		I_{GSS}			± 100			± 100	nA
Zero Gate Voltage Drain Current		I_{DSS}			- 1			- 1	µA
On-State Drain Current	V_{GS} = - 10 V	$I_{D(on)}$	- 20			- 20			A
Drain-Source On-Resistance	V_{GS} = - 10 V	$R_{DS(on)}$		0.060	0.074		0.044	0.054	Ω
	V_{GS} = - 4.5 V			0.092	0.113		0.082	0.100	
Forward Transconductance		g_{fs}		8			10		S
Diode Forward Voltage		V_{SD}		- 0.8	- 1.2		- 0.8	- 1.2	V
Dynamic									
Total Gate Charge		Q_g		10	15		12.5	19	nC
Gate-Source Charge		Q_{gs}		1.8			2.1		
Gate-Drain Charge		Q_{gd}		2.5			3.5		
Gate Resistance		R_g		7			NS		Ω

Note
NS denotes not specified in original specification

Specification comparisons are supplied as a courtesy to compare two devices and do not constitute a commercial product datasheet or any guarantee of identical performance. Designers should refer to the appropriate datasheets of the same number for guaranteed specification limits.